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PUTTING THE DRIVER FIRST

Exclusive

GP medical boss on safety

Warwick

Straight lines from the cockpit

Prost

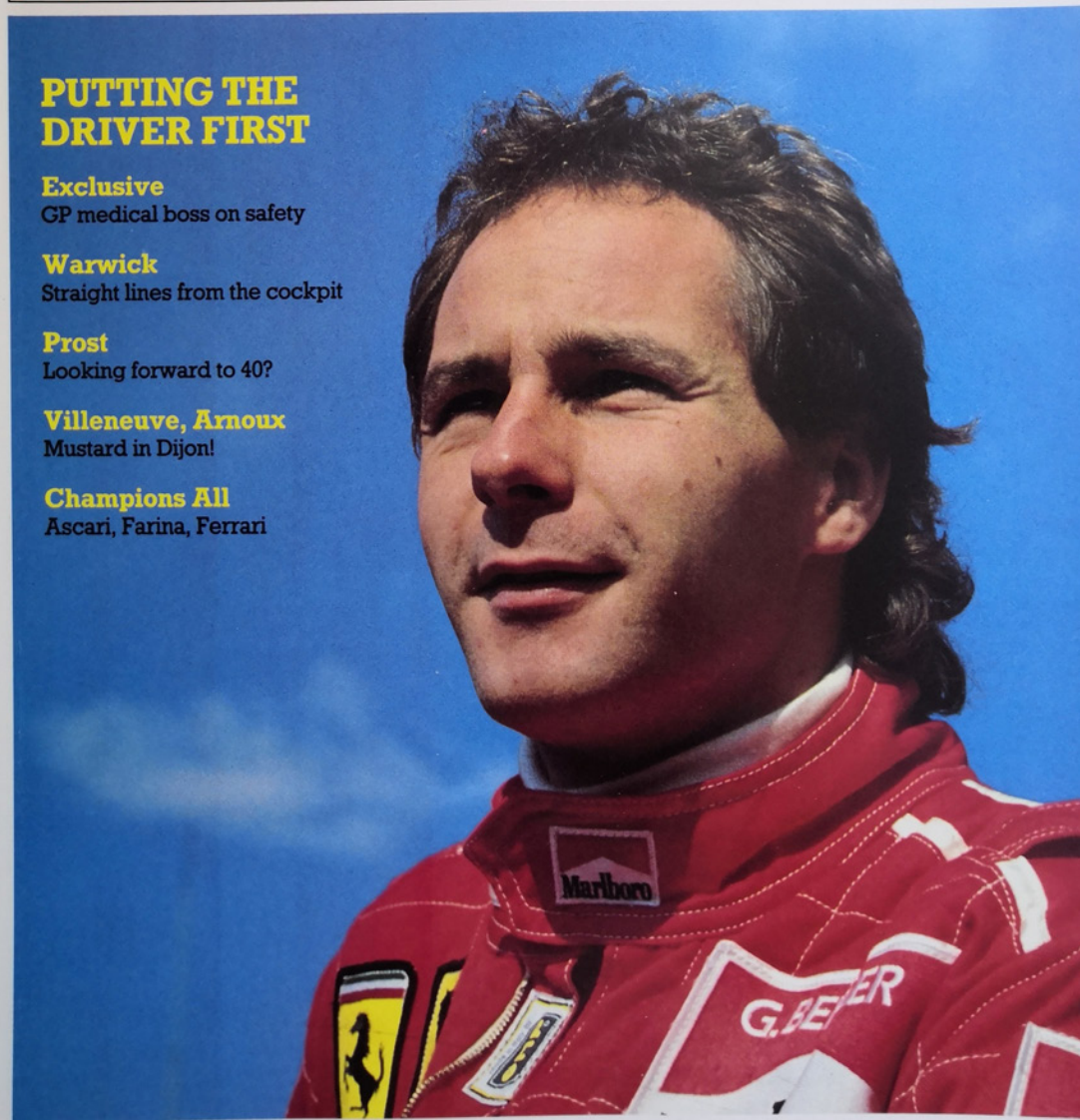
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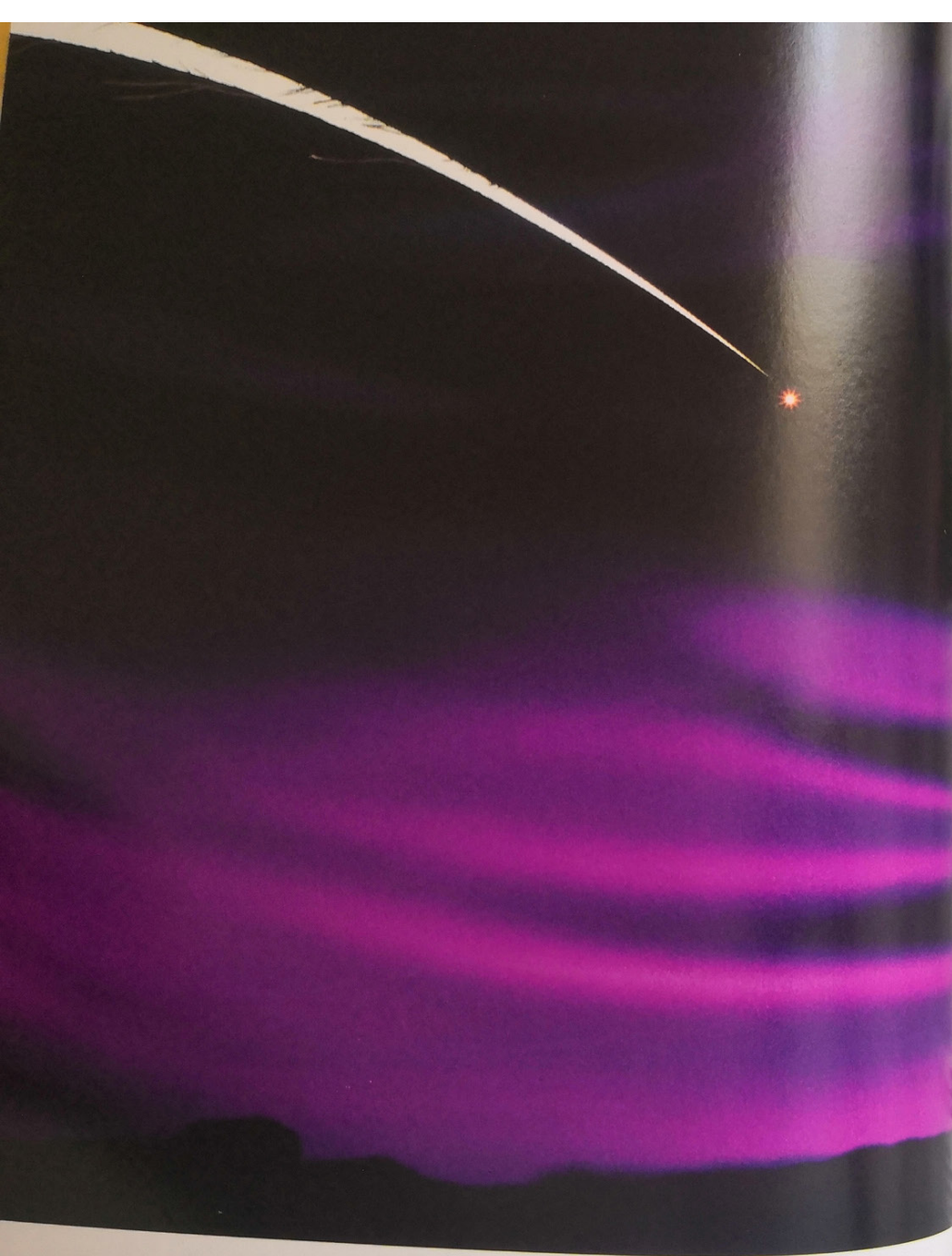
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Benetton Formula: enjoying the new atmosphere

stands as genuine motor racing returned to Formula 1. Atmospheric engines are now the order of the day in Grand Prix racing: instead of turbos forcing unnatural amounts of air into the cylinders — as much as five atmospheres in some of the fiercer units seen in the past decade — there are now only 3.5-litre normally-aspirated engines from a worldwide variety of sources.

There was early disappointment for the Brazilian faithful when World Champion Ayrton Senna's McLaren tangled with the Ferrari of Gerhard Berger on the very first corner, ending the Austrian's race and effectively leaving Senna in limbo. No harm was done to the race, however: no fewer than seven times would the lead change hands, but when the dust settled the scarlet Ferrari of Nigel Mansell would head them all home — a fairytale start for the combative Englishman in a new team. Second was the McLaren of Alain Prost, and home spirits rose with the first-ever rostrum finish for local boy Mauricio Gugelmin in the March.

Firmly at the heart of the matter, however, was the man in fourth position. Driving the handsome Benetton Ford with its V8 engine, newcomer Johnny Herbert became the first man since the legendary Prost himself, ten seasons before, to score World Championship points in his first-ever Grand Prix.

It was a triumph for man and machine, and the harmony between them. Fitness, for the modern Grand Prix driver, is all. Skill, at this level, is almost taken as read, but with that skill must go the physical and mental toughness to endure a sixty-lap pounding in the cockpit. The way the body works inside a Grand Prix car is quite extraordinary, as recent in-car camera work has shown: racing suspension does not exactly put a premium on driver comfort, while the G-forces in Formula 1's most daunting corners — the fearsome Eau Rouge at Spa, for example — defy belief. To say nothing of the cockpit temperatures...

Through it all, a driver must be able to call on razor-sharp reflexes, precision in the placing of his car, accuracy in the judgement of braking points. A fraction of a second, in his peculiar place of work, can make or break his working day. Mind, eye and body must all work in perfect harmony.

What places the Grand Prix driver apart from other athletes, however, is the extra dimension brought by the machine in which he plies his trade. The same basic principles apply to his car as to himself: it must be a whole greater than the mere sum of its parts, all of which in the first instance are machined



RIO: HERBERT CELEBRATES HIS FIRST POINTS

to the finest tolerances from materials at the leading edge of modern technology. Component performance is crucial, for going Grand Prix racing is no overnight matter: why jeopardise the months and years of planning, preparation and construction with a faulty bearing or a suspect tube? At the heart of this extraordinary machine is its engine. Rory Byrne's elegantly efficient Benetton chassis is wedded to Ford's hard-working V8 power unit, whose rhythm in turn is maintained by the Mobil 1 lubricants on which Benetton rely to ensure maximum performance in the most testing extremes of stress and temperature. Rio, more than any other circuit on the calendar, makes killing demands on engine temperatures, but other tracks like Monaco require other characteristics: torque, the ability to spread the power over a wide band, pick-up out of the endless corners, but genuine punch on high-speed straights with consistent running at 11,000 revs and more. Now that turbos are a thing of the past, the engine specialist is looking for an output around 650 brake horsepower: with closer racing than we have seen for a decade in store, the spoils will go to the team whose engine finds the extra edge.

Ford have chosen the V8 path for

their new engine, convinced it will hold its own against the V10s and V12s preferred by other major manufacturers. The heat of battle in Rio underlined the Ford engine's reliability, but a similar challenge faced its driver. Johnny Herbert's prodigious gifts were never in doubt, but in Rio he proved he too could last the distance. Peter Collins had been unswerving in his faith in Britain's newest talent: the confidence was handsomely repaid in Brazil on March 26. Johnny Herbert may still be walking at a tortoise pace, but in a Benetton Ford cockpit he is one of the hares the F1 pack will be trying to hound this year.

Motor racing is a marriage of men and machines. The successful ones are the genuine working partnerships. Johnny Herbert, Benetton Formula, Ford — and Mobil 1: this is a team to take on the Grand Prix world.

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TWO NAMES, ONE COCKPIT: THIS ONE IS HERBERT

No fewer than forty drivers are themselves aspiring to a place on the 26-car grid for the first race of this new season. One of them is no normal aspirant, as far as Grand Prix racing goes: five months ago he was unable to walk unaided, today he joins the world's elite at the pinnacle of motor sport. In two hours' time, a British driver in a British car, he will have produced a performance to gladden the hearts of all who follow Formula 1 in its 16-race tour of the world.

Pre-qualifying sorted the men from the boys, first of all: just five of the eager newcomers could go into the 30-car competition for places on the grid itself, but the good news was that in that heart-stopping moment when the 26 qualifiers waited for the green light on season 1989, the grid had a refreshingly new look. New engines — V8s, V10s, V12s — new faces and a handful of all-new cars took their places in front of the familiar sun-drenched

DATELINE RIO DE JANEIRO, MARCH 26: A NEW BEGINNING
FOR FORMULA 1 RACING, AS TURBOCHARGING IS
OUTLAWED AND NORMALLY ASPIRATED ENGINES ARE
ONCE MORE THE ORDER OF THE DAY



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Editor

Stuart Sykes

Design

Peter A. Murray
Suzanne Pollitt
Lick 'N' Stick

Production

Geoff Woolton

Advertising (UK)

Nigel Bellwood
(Creston Ltd)
Telephone: (01) 337 2970

Advertising (Australia)

Angela Denton

Subscriptions (UK)

Teresa Doherty

Subscriptions (Australia)

Mamie Lewis

Circulation

Peter Frost

Race Photography

(Unless otherwise attributed)

Keith Sutton

Steven Lee, LAT

John Townsend

Crispin Thurston

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Roger Chown

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POLE POSITION

THE EDITOR'S PAGE



(John Townsend)

Breathing normally, Grand Prix racing took to the track again in Rio. Breathing less than normally, Grand Prix driver Philippe Streiff was, as this number of *Prix Editions International* went to press, still fighting for his life as a result of his massive accident in testing in Brazil. No-one can say when Philippe will take to the track again: first he must win the most famous victory of all. These two issues — Formula One's return to the glorious noise of atmospheric engines, and the risks run by men in racing cars — are central themes in this number of our magazine.

Our regular Grand Prix reporter **David Tremayne** also turns his attention to the outlawing of the turbo, while engines — old engines, new engines, borrowed engines and engines that just plain blew — feature prominently on many other pages. How thrilling it was, after what seemed like years of one-horse dominance, to watch so many cars join battle in Rio. Five teams in the top six finishers; six cars separated by a mere 18 seconds; seven changes of race leader — this was the true arithmetic of motor racing, adding up to a heartwarming start.

Heartbreaking, however, was the shadow cast by Philippe Streiff's high-speed accident, and the clouds of confusion that seem to have attended the response by those in charge. Such questions have been etched in people's minds, in the UK especially, by recent tragic events in another much-loved sport. Who better to address these issues than **Prof Watkins**, the extraordinary man in charge of matters medical at each Grand Prix? Neither he nor any member of the governing body FISA was responsible for the unconscionable delay in Streiff's hospitalisation, for this was a private test session arranged between teams and circuit owners. From another and more deadly point of view, our regular driver columnist **Derek Warwick** argues for

the revival of a drivers' association to protect the interests of the men at the sharp end. How, indeed, could such a grouping have been allowed to lapse? Derek might be the most popular first-time winner among a number of men poised, or so it seems, on the brink of that momentous feat. Other driver features in this issue turn the spotlight on people at opposite ends of the Formula One spectrum. Is the greatest of them all, Alain Prost, on the brink of giving up? **Alan Henry** asks the question we all want answered, while **Dan Knutson** finds Ferrari's Gerhard Berger in bullish mood despite defeat by new teammate Nigel Mansell. Mansell and Ferrari: Agip and water? The mixture was explosively successful in Rio. On the outside of all this, looking in, Martin Donnelly told **Andy Smith** how it feels to be so close, and to see his lifestyle inexorably changing as Formula One beckons.

Rio sunshine, rain in France: Ligier's recent contrasts of weather mirror the blue cars' slide from Formula One front-running to recent failures to qualify. Are Ligier wrong to retain the fierce streak of nationalism that has always fired the team? Seeking to reflect the truly international nature of Grand Prix racing, PEI is particularly happy to welcome distinguished French columnist **Johnny Rives** as he tests the waters with a team whose move away from Vichy may be the start of the long road back. Back already are Pirelli, bringing with them the spirit of competition that prevails at all levels of Formula One. But back, too, is the spectacle of one-off qualifying laps which Goodyear's monopoly had allowed us to forget. How can qualifying tyres be in the best interests of safety? **Dan Knutson** poses this and other questions: being first, at every level, is the name of this peculiar game.

If the sheer pace of change in Formula

One dictates the return of Pirelli, or of Renault, or the arrival *en masse* of new Grand Prix aspirants, there is no harm in stopping now and then for breath, to savour moments from the sport's kaleidoscopic history: the past is as much a part of Formula One as are the present and its headlong future.

Our series on the World Champions takes up the theme of Italy: possibly the most fervent Formula One nation on earth, yet one that has produced just two World Champions — and only one for the Prancing Horse. In a new companion series of personal reflections, distinguished Grand Prix writer **Nigel Roebuck** relives the heart-stopping battle of two young lions in the French Grand Prix of a decade ago.

We hope to have gathered, in this first issue of PEI under its new managerial team, the strongest line-up of contributors the magazine has ever enjoyed. At its heart, as he will be in each issue, is your man **Maurice Hamilton**: one of the world's most respected writers on motor sport, but one whose clear grasp of realities is always lightened by that Irish twinkle in the eye. "On the Other Hand" is no mere alternative look at the Formula One scene: it is central to PEI's ambitions. All of us in this new team are glad to welcome back old friends, and to open our columns to writers and photographers who will *become* old friends. The same greeting goes to all our readers, old and new. If you don't like the new thrust, please tell us why; if you do like the look of our own new era, we'd still be pleased to hear from you.

STUART SYKES
EDITOR

Stuart Sykes

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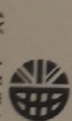
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World News

DAN KNUTSON

Rio de Janeiro, Brazil — Last year McLaren built the ultimate race car; it won all but one Grand Prix. Now McLaren plans to build the ultimate road car.

McLaren Cars plans to design and manufacture a unique high performance road car to reflect the quality and technology which has been the hallmark of McLaren International's highly successful world champion Formula One team.

McLaren's super car should make its debut in about three years. McLaren plans to build 50 to 100 cars a year for this very select market which includes cars such as the Ferrari P40 and the Porsche 959.

Ron Dennis, however, does not see McLaren becoming like Porsche or Ferrari in the future. "We are not looking at any company and trying to be like them," he said. "We want to be McLaren."

It has been speculated that McLaren was considering another form of racing such as CART or the World Endurance Sports Car series. Dennis emphatically stated that "any other form of racing is definitely out for us as it would be counterproductive to our Formula One project."

Don't expect to see the McLaren road car on the track. "It's definitely intended not to be a race car," Dennis said. He added that McLaren would not support anyone who tried to race the car.

While the "super car" project will be separate from McLaren's Formula One effort, Dennis said that some things such as their wind tunnel would be shared. "My challenge is getting the business end right," Dennis said, "and making sure that it doesn't hurt the Formula One project."

McLaren designer Gordon Murray will oversee the design of the new road car. 1989 will be a transition year for him as he works on both the Formula One and the road car projects.

Directors of the new company, which will be funded largely by the TAG Group,

will include Dennis, Murray, Mansour Ojeh, Bob Ilman and Creighton Brown. Dennis said that McLaren had not made a decision on what type of engine the road car would use. How much will it cost? "Price is immaterial in this limited section of the market," he said. "The most important thing is the quality."

Alain Prost has put an end to the rumours that he plans to retire. "It's not true at all," the McLaren driver said when asked if he would quit racing at the end of the season. "I still want to race. I'm competitive and happy with the team. I'll let you know (about retiring)."



New season, newest team: Moneytron Onyx. (John Townsend)

Last year Prost and McLaren teammate Ayrton Senna formed an excellent working relationship and won all but one Grand Prix. How is that relationship this season, especially now that the new McLaren isn't as dominant as last year's model? Said Prost: "We saw that in this condition we are working together even better than before."

During pre-race testing the new McLaren Honda MP4/5 was about a second a lap faster than its nearest rival. Last year's McLaren was often two or three seconds faster than the other cars. Press reports that McLaren was in serious trouble upset McLaren boss Ron Dennis. "An awful lot of people have done an awful lot of speculation on something that's none of their business," Dennis said at a Marlboro McLaren Honda press conference



And a front row start as well... (De Vries)

prior to the Brazilian. "A lot of cynics feel that McLaren is reversing a trend. That's not our opinion." The McLaren team feels that once the new MP4/5 chassis has more testing miles it will be even faster.

Designer Neil Oatley, assisted by Steve Nichols, was the project leader of the new McLaren MP4/5. The car will see two phases. Phase one concentrates on reliability, and the car will be fitted with modified versions of the gearbox and brakes used in 1988. Phase two will entail a weight cutting program, new rear suspension and front uprights plus a new transverse gearbox. The car has been built with a new "high modulus" carbon fibre which is lighter and stronger than the carbon fibre used last year. Constructed by the American Hercules corporation, this new carbon fibre is made available exclusively to McLaren.

Eleven of the 39 drivers on the Grand Prix entry list are Italian. France has six, Great Britain has five, Brazil and Germany four each, Japan and Belgium have two, and the USA, Spain, Austria, Switzerland and Sweden can each claim one driver in the Formula One ranks.

Brazil marked Riccardo Patrese's 177th Grand Prix start — a record which tops Graham Hill and Jacques Laffite with 176 Grand Prix starts each.

Those who watch Grand Prix races on TV this season will get to see the action from cameras onboard the cars. Here in Brazil the two Canon Williams Renaults were fitted with cameras.

According to one team manager, seven teams took the initiative to "improve the show". Williams, Ferrari, Arrows, Lotus, Benetton, McLaren and March will take turns carrying the cameras. Each Grand Prix will feature one team, and each team will carry the cameras for two races. Two races will be held "in reserve" in case of technical problems which could cause a team to lose coverage. Australian electronics whizz David Roberts, who was involved with last year's Indy TV coverage, built the equipment in six weeks flat, and says that more cameras per car will be seen eventually. Development costs of US\$800,000 will be met by the teams involved.

What is it like to drive the new non-turbo cars? "It's very easy to adapt to this style," Alain Prost said. "You don't even think about it. It's even easier (than driving a turbo) because you don't have to think about fuel and boost and so on."

When Alain Prost arrived in Brazil he joined the Williams crew for a seven hour wait in the Rio airport. It seems they had checked the "tourist" box on their entry documents, while the customs officials said that the teams were coming to work.

Brazil released a special postage stamp on March 23rd in honour of world champion Ayrton Senna.

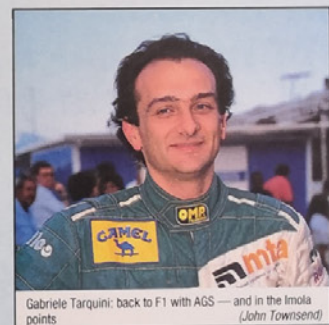


'Fits me like a glove,' says Eddie. (Briscoe-Knight)

Eddie Cheever's new Arrows Ford A11 didn't pass technical inspection Thursday because the American couldn't wriggle out of the tight cockpit in the required five seconds. The crew installed a butterfly shaped steering wheel to give Cheever more room, and he was then able to make the "escape test" in under five seconds.

The drivers weighed in before the start of the first practice session. Formula One's new heavy weight champion is Mauricio Gugelmin at 80 kilos. At the other end of the scale are Satoru Nakajima and Roberto Moreno who tipped the scales at 59 kilos. All figures are complete with helmets and coveralls, incidentally.

Starting with round two of the Grand Prix championship, Italian Gabriele Tarquini will replace Philippe Streiff on the AGS team. Streiff was badly injured in an accident here during the test session held prior to the Grand Prix. Streiff has been flown home to France. It is still not certain whether he will be permanently paralysed. Tarquini had been out of a Formula One ride after the new FIRST team folded. Formula One's governing body FISA, meanwhile, issued a release saying that because Streiff's accident happened in private testing, it could not be held responsible for any safety problems.



Gabriele Tarquini: back to F1 with AGS — and in the Imola points. (John Townsend)

When asked if his company plans to use a rotary valve engine in Formula One in the near future, Honda's Formula One project leader said no. Sources close to Honda say that a rotary valve system is under development. The advantage of the system is the elimination of the valve train components, and this allows the engine to rev higher. The disadvantage is weight, and the Honda V10 already has more than enough of that.

Brabham driver Stefano Modena is unusually superstitious. He always wears his right driving glove inside out. Here in Rio he asked that the team change the cars in the garage so that he would be on the right side.

The Brabham team lost two Judd engines even before the mechanics could install them in the cars. A fork lift broke at the airport and dropped the two engines on the tarmac.

Nigel Mansell's win in Brazil was the first for a Ferrari V12 engine since Gilles Villeneuve's victory at Watkins Glen in 1979. Both drove #27.

Slim is in 1989. Many of the new Formula One cars have very narrow cockpit areas. The footwell on some cars looks to be barely "two ankles wide." Frank Dernie designed the Camel Team Lotus chassis around driver Nelson Piquet. Lotus test driver Martin Donnelly, who has bigger hands than Piquet, was scraping his knuckles on the sides of the narrow cockpit until the team built him a smaller steering wheel. British Formula 3000 star Donnelly will be testing many miles for Lotus this season. It will be interesting to see how his lap times compare with Piquet's...

Didier Calmels has been arrested by French police for allegedly shooting his wife. Calmels and Gerard Larrousse are partners and owners of the LC Lola Formula One team.

It is reported that Calmels, a 38-year-old French lawyer, killed his wife Dominique with a shotgun in their house on the night of February 28th while their four children were asleep.

According to Lola driver Philippe Alliot, Calmels was very much in love with his wife but the relationship had deteriorated recently. Alliot was also quoted in the Italian press as saying that Calmels had been having a psychologically difficult time and wanted to commit suicide.

The Lola team still plans to contest the 1989 Formula One season.

Prix Editions congratulates Arrows on two new additions to the team: Eddie and Rita Cheever's new daughter Estelle and Mr and Mrs Jackie Oliver's new daughter Sophie.

Officials disqualified the times set by Rene Arnoux's Ligier and Pierluigi Martini's Minardi in Rio on Friday. The drivers heads were not below a line between the front and rear roll hoops. Both teams were fined US\$2000. Ironically, Arnoux and Martini are two of the shortest drivers on pitlane.

The 1989 season marks the start of the new non-turbo era. The glorious noise of V12, V10 and V8 3.5 litre engines filled the air in Brazil. Bring ear plugs if you plan to go to a Grand Prix this season. Seven types of engines could be found in pit lane: Ferrari V12, Ford V8 (in several versions), Honda V10, Renault V10, Judd V8 (in several versions), Lamborghini V12 and Yamaha V8.

WANTED

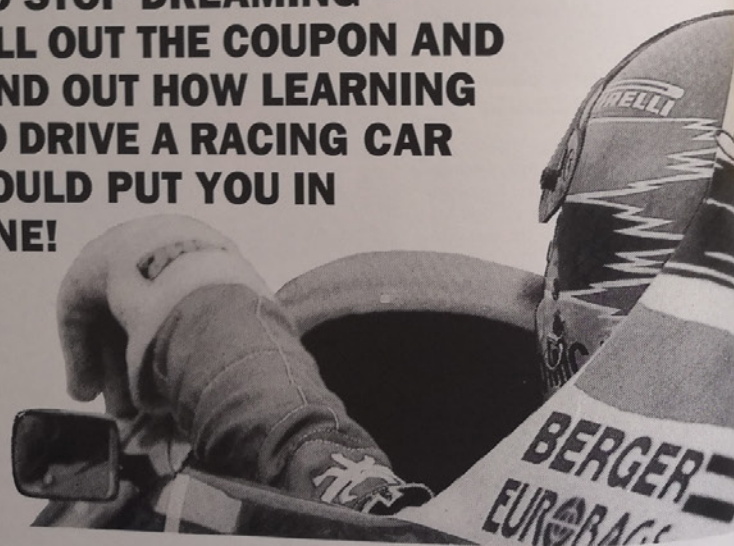
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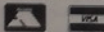
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"ON THE OTHER HAND"

I had seen the look once before. It was at Long Beach in 1983 and I remember walking into the Convention Centre, heading for the paddock area and finding John Barnard wandering aimlessly around the McLaren enclosure. His glazed expression suggested he had just drunk a bottle of Scotch and decided it had been a pleasant experience. I'm not sure if John actually touches the stuff but, for a man possessing the same initials as Justerini & Brooks, why spoil a good story?

In any case, John had just witnessed his cars coming from the back of the grid to finish first and second. The fixed grin confirmed the impression that Barnard and the rest of his team had, at best, expected an early bath and, at worst, the agony of watching John Watson and Niki Lauda being lapped. The surprise nature of the victory had been similar to trudging to Heathrow and suddenly receiving a first class ticket to Australia when you expected to fly economy. The free champagne always tastes sweeter on those occasions.

It was the same in Rio on 26th March, John Barnard walked out of the Ferrari garage and it must have seemed as though he was treading on air. Nigel Mansell had driven a Ferrari to victory at the end of a weekend when the mechanical

problems almost outnumbered the army of critics prepared to write off Barnard and his car.

Quite how John managed to stop himself from climbing on to a packing case and waving two fingers at the pit lane and press room I'll never know. His knowledge of Italian is limited but I'm sure he has learned one or two choice phrases which he would have enjoyed slinging back at his tormentors.

Of course, John has been around long enough to realise that one win does not mean you should prepare your dinner jacket for the ceremonious back-slapping with Jean-Marie Balestre in December. Even so, that result must have brought intense relief, not to mention the public vindication of his project.

It was also a gift for Cesare Fiorio, the man who had been switched from Lancia to bring together a Grand Prix team which seemed to be polarising between Maranello and Guildford. Cesare is no fool either but his trials and tribulations in world championship rallying have taught him not to look a prancing gift horse in the mouth. Except that this was no freebee victory.

There had been the anticipated jokes before the event, of course. It had been suggested that Cesare would try and place service vans around the circuit,

given the Ferrari's penchant for rolling to a halt as frequently as one of the red buses which Nigel used to advertise.

Riccardo Patrese was one of the few people not to be surprised by the Ferrari victory. He had worked with Fiorio on the Lancia sportscar team and knew all about Cesare's Midas touch. "I wasn't too bothered about Ferrari but, when I heard they had moved Fiorio to Formula One, I became worried," he said. "Everything that man does turns to gold."

Yes, but so soon? John Barnard's bemused expression suggested otherwise. But it was an emotional moment, one of several in the paddock that sultry afternoon.

In the garage next door to Ferrari, an enormous weight had been lifted from the shoulders of Peter Collins. The Benetton-Ford team manager had willingly carried the responsibility of signing Johnny Herbert but there must have been private moments when the rising tide of criticism threatened to wear Collins down. Yet, throughout the winter, Collins had said Johnny Herbert is *THE* man.

I had my doubts, not so much about his natural ability, but about the strength to exercise it for 61 laps at a place like the Autodromo Nelson Piquet. The race was longer than anything Herbert had ever



John Townsend

THE MAURICE HAMILTON COLUMN

done before, and certainly hotter than the average Easter Sunday in Essex. When it was all over, I watched from the fence by the scrutineering bay as the survivors came to a grateful standstill after 99 minutes of punishment in 105 degrees.

I expected to see the lad meander through the gates on automatic pilot and roll straight into the fence or, preferably, a certain FISA official. But there was no sign of the semi-comatose driver which most of us had predicted. Apart from receiving a gentle hand as he initially began to wriggle free, Herbert stepped from the car unaided, hopped to the left-front wheel, sat down and took another swig of his drink. Then he stood up, peeled off the top of his overalls and sat down again. His tee-shirt was saturated and his face flushed, but then he was no worse than those around him. Indeed, he was in better shape than the winner.

Over in the far corner, a man from FISA was busy massaging Mansell's bum and thigh and, to tell you truth, I didn't know who to feel sorry for. As Nigel was helped towards the rostrum, Herbert hobbled off in search of his bicycle, his work done for the day. It had been a truly remarkable performance by both drivers.

On the other hand... (LAT); bottom left: On the other hand... (Keith Sutton); bottom right: On your bike, Johnny! (Sporting Pictures); Facing page: Brabham bites back (John Townsend); with Brabham boys Modena (left) and Brundle (Sporting Pictures), while Delboy is back in the points (De Vries).

A few minutes later in the Benetton garage, Herbert was re-united with Collins. It was one of the most dignified and emotional sights I have seen in a hard-nosed business not exactly renowned for such behaviour. Collins, an Australian of a friendly but brusque persuasion, could barely speak. Sure, Johnny had personally removed Collins's neck from the chopping block, but both men fully deserved to savour the moment. Had it not been for Collins's refusal to be swayed from his belief, young Herbert would probably still be languishing in Formula 3000.

Of course, there was pandemonium in the British end of the press room. They didn't know where to spray their exultant phrases next; Mansell winning in a Ferrari conceived by the banks of the River Wey in Surrey; Herbert fourth; Warwick fifth; Palmer seventh; a strong drive from Brundle in the Brabham. And, when Mansell then dropped the trophy, the headline writers' day was complete. It was the best sports story of the weekend. In London, editors generously cleared the back pages and then told us hacks in Rio that there were 60 minutes in which to fill the space with flowing prose. Or, to be precise, explain why most of us had said, with great authority, that Nigel Mansell and Ferrari had about as much chance of winning the Brazilian Grand Prix as Edwina Currie had of becoming head of the Egg Marketing Board.

At the end of the day, Martin Brundle probably got a raw deal since his run into eighth place (behind Gugelmin) before retirement was relegated to the final paragraphs in the light of such brilliance elsewhere in the race. The Brabham effort had been impressive. When the teams with the difficult task of pre-qualifying rolled out on Friday morning in Rio, it was clear that Brabham knew precisely what they were doing. And, behind all of this, it was easy to detect the guiding hand of Bernard Ecclestone. For instance, the cars were turned out in the immaculate pinstripe paint scheme over which Bernie has been known to bring the factory to a halt if one line was so much as a millimetre out of true.



Sure enough, Bernie was there in the Brabham pit, watching Brundle and Stefano Modena pre-qualify comfortably. He was talking with Joachim Luthi, the man who, we are told, actually owns the team. We had also been informed early in the proceedings that Mr. Luthi was keen to keep a low profile. If wearing a Brabham shirt and a colourful assortment of headgear, and then decorating the pit with dusky ladies in denim, is how you play an unassuming role, then Jean-Marie Balestre had better watch out if Mr. Luthi ever changes his mind and comes on strong.

The team, now managed by David Stubbs, is a credit to the Brabham name and they even manage to cope with Modena's superstitions. I mean, this man makes walking under a ladder seem as foolish as refusing to leave the house because there is a vowel in the month. He changed hotel rooms a couple of times until he found one with the bed facing in the right direction and then the cars had to be shuffled around in the cramped garage because Stefano insisted on his being parked on the right. All harmless stuff and you can't knock him for it, but it could prove to be a trial by the time the team reach Adelaide in November. And quite what Stefano will do when the cars are parked line astern



in the Monaco pit lane, I'll await with interest.

The important thing, however, is that Modena is an ace in the making and Brabham have an aggressive young line-up in the Capelli/Gugelmin mould. In the meantime, the team will concentrate on sorting out serious matters such as the official hand-outs in Brazil which referred to the cars as Brabham-Fords for two days before someone finally gave John Judd credit where it was due.

There were a number of bleary-eyed mechanics on the flight home, a race meeting compounded by the arrival of new cars having taken its toll. The Arrows team were particularly subdued, their mood matching Derek Warwick's introspective manner the previous day as he walked slowly and silently from his car.

He finished fifth. He could have finished first. Two lengthy pit stops had proved costly. The first had been caused by Warwick letting the clutch out too soon and spinning the rear wheels before the nuts had been tightened. At the second, the rear jack was not placed properly, causing the car to droop to one side,

thus preventing the speedy removal of the right-hand wheels. And then DelBoy stalled in his anxiety to rejoin.

The Arrows mechanics had been up all night, returning to their hotel for a brief rest before going on duty again on race morning. The cars were brand new and the fact that Warwick's A11 actually finished the race was a tribute to the preparation by the mechanics and the work of the design team at Milton Keynes, particularly the engineers in charge of the transverse gearbox.

These things are easily forgotten in the heat of the moment, of course, and a member of the management is reported to have made it clear that he thought the mechanics had lost the race. After waiting 10 years for a win, such frustration can be imagined. But so can the disillusionment which then washed over one or two members of the weary team.

Jackie Stewart has always maintained that emotion is a dangerous thing in the cockpit. It can have a detrimental effect in the pit lane too. But, in Rio, most of it had been of a memorable kind. ■



1989 FORMULA ONE GRAND PRIX CHAMPIONSHIP — RACE NO.1

RACE REPORT RIO

DAVID TREMAYNE



(Allsport/Pascal Renda)

After Nigel Mansell's stunning victory in the Brazilian Grand Prix the bells chimed long into the night throughout Italy as the shockwaves ebbed and flowed. In Maranello, home of the greatest of all racing teams, the celebrations knew few bounds. When he had set a new atmio lap record for Fiorano on his first ever run in a Ferrari (the interim 639 version of the F1/89), Mansell had already captured the hearts of the Ferraristi. Now, they hardly knew what to make of it all. They draped Union Jacks alongside the Tricolours, hung giant posters of him throughout the town, Mayor Giorgio Gubertini pronounced his intention to commemorate him with a bronze bust in the Ferrari museum. He hailed him as a spiritual son, "who has brought us great glory". If the scenes of joy were extraordinary, so was the very success itself. Throughout testing the 639 and 640 versions of John Barnard's F1/89 had proved woefully unreliable. Mansell once described how its semi-automatic transmission had temporarily become fully automatic on one occasion at Paul Ricard, when it grenaded the five-valve V12 shifting itself from seventh to

third along the back straight. And his very car in Rio had been devastatingly unreliable. In three of the four sessions it ground to a halt when the hydraulic oil pump in the gearbox broke... And yet, the week before FOCA testing began in Brazil, Mansell had set what would be the fastest lap (1m 36.00s) anyone would manage until Ayrton Senna blitzed his McLaren-Honda MP4/5 on to the pole in the Saturday qualifying session. That in itself gave the lie to off-season rumours fanned by Ferrari itself in a masterpiece of sandbagging that the V12 was desperately short of power. I once asked Mansell to compare it to a Judd and he refused, diplomatically. The clear inference was that it had around 680bhp max. Yet down Rio's long straight it gave nothing more than a mile or two an hour away to the McLarens and their supposedly 640/650bhp Honda V10s, or the Williams with their 630bhp Renaults. And though it was highly unexpected, Mansell's victory was no Monza. There was no last-minute fluke to tip the balance in Ferrari's favour. Ironically, however, it was the F1/89's ability to rocket off the startline that led to the circumstances in which

Mansell profited. The electro hydraulic box has a normal clutch that the driver can use to get off the line or away from pit stops. Both Mansell and Gerhard Berger felt they were either going to set off like Don Garlits, or bog down badly. Neither could be sure. As it turned out, Berger got an absolute flier and arrived at the inviting gap betwixt Riccardo Patrese's front row Williams and Senna just as it was closing. Undaunted, he slammed to the right and stayed there, foot hard down, as Senna began to edge across in that direction. The local hero's action was partly understandable desire to block his rival, partly an obligation as he too was squeezed by Patrese swooping across. As Berger still refused to lift and stayed neck and neck with the McLaren despite his right-hand wheels being on the grass, contact was inevitable. The Ferrari half spun and gaunched itself into retirement over the kerb. Senna lost his nose wings and was thwarted for the second year and was running on home ground. Time was when Mansell was the driver least able to survive a Rio opening lap, but now Senna has taken up the mantle. It was one of those things that happen when two chargers refuse to concede

but a slight lift would probably have won the Brazilian the race... If the church bells were ringing in Maranello, alarm bells were sounding in Woking. Ron Dennis wore a resigned expression afterwards, but was inwardly desperately disappointed to have his dream of winning an entire season's races crushed so early. And there was the irony that, but for minor problems, McLaren would have won. If that sounds far fetched, consider this. The interim MP4/4Bs with V10 power have proved highly reliable and very quick, and the World Champion's brace of 1m25s MP4/5 qualifying laps were in a class of their own. And in the race Alain Prost still finished only 7.8 seconds adrift of Mansell even though he had been forced to make do with only two sets of tyres to the Briton's three. Rio is highly abrasive, and in race day's 106 degree heat all of the Goodyear runners knew in their hearts that they would have to stop twice. It was fortunate for Nigel that he had to, for in his second he also changed the steering wheel as its locking mechanism was working loose in the faster corners. Hardly an ideal development...

As he stayed out for lap after lap, Prost evoked all manner of questions. Was he trying to repeat his glorious precision of Mexico 1986, where he alone had got through on two sets of Goodyear? Was he banking on a very late charge on soft rubber? The answer was simple. His clutch had gone out of business just after that first stop on lap 14, and without it he would never be able to restart from his second. Like it or not, he was obliged to make it through on worn tyres. It is a mark of the man that he not only did so, but stayed out for 45 laps on the same set and still finished second. With a third set of tyres? "I have no doubt I would have won," he responded quietly. Instead, he looked highly likely to face late challenges from Patrese and Derek Warwick, but luck was with neither of them. In his record 177th Grand Prix, Riccardo had staggered one and all by topping Friday's qualifying despite everything McLaren and Ferrari threw at him, yet Saturday saw him at the base of the time sheet after an engine had failed and the replacement - installed in a brilliant 31 minutes! - had misfired. Unperturbed, he swept into the lead at the start and held it until Mansell overtook on lap 16. He was back in front on lap 21 when the Ferrari made its first stop, but thereafter Williams' gamble on trying to get by on two sets of tyres worked against him. He didn't stop until lap 25, and



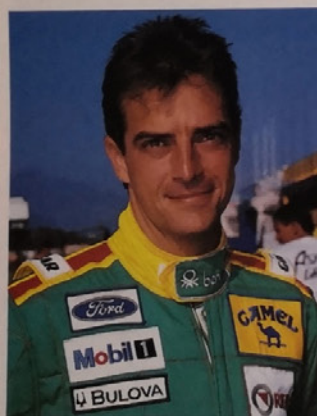
Debut win for Mansell — the Ferrari packs a punch

(LAT)

Prost: number two on the day, though Guegelmin's March was no real threat

(LAT)





the delay sentenced him to scratch after his rivals from seventh spot. He was back up to a charging fifth by lap 50, closing fast on Johnny Herbert and Mauricio Gugelmin as they shadowed Prost. Indeed, for scant feet on lap 51 he was ahead of both, but literally the moment he passed the Brazilian's Leyton House March the Canon Williams threw a camshaft pulley and his race was over. Without that, he might well have caught and passed Prost in the remaining 10 laps, but the cruising Mansell would have remained beyond reach. Had he not stayed out so long on his first set of tyres the story might have been different, but the failure rendered that academic.

Ultimately, then, Williams had only Patrese's fastest lap as consolation in its most competitive showing since Adelaide in 1987. Thierry Boutsen, fastest right up until the closing day of testing, was still recovering from an almighty shunt that occurred in the week preceding the race when his Williams' rear suspension broke. Detuned or not, however, he was a useful second to Patrese for the first two laps and third for another when his engine cut out suddenly. Renault Sport's Bernard Dudot hypothesised that debris from the Senna tangle, which had smashed the Belgian's right mirror, might have been ingested into his RS01 V10. Nevertheless, the Didcot equipe and its new Gallic partner could draw satisfaction from a very competitive showing that augured well for its season.

Like Patrese, Warwick deserved better fortune in his 101st Grand Prix and the first at the wheel of a non-turbo. Ross Brawn's new USF&G Arrows A11 is clearly a good car, and the Englishman exploited its potential with a strong eighth on the grid alongside Ivan Capelli who was the best of the V8 bunch. By lap 16, as Mansell took the lead, DelBoy was up to third and closing on Patrese when he made his first stop four laps later. Cruelly, a sticking wheel delayed him, and exactly the same thing, plus a stall induced by tricky gear selection, levied a similar penalty second time around. By that time he had regained the position and, like Riccardo, might reasonably have expected to finish second by catching the tyre-conserving Prost in the closing stages. As it was, he had to be content with fifth. Capelli had been a fancied runner all along, the 1988 March having been honed into reliable state in 16 races. The Italian qualified well and was in third place, closing on Patrese, when he made his first stop. Shortly after,

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Clockwise from top left:
First bend wheel banging: Senna would lose out (Allsport/
Pascal Rondeau); not a cloud in Nigel's sky (LAT); Berger
beats it back to the pits (John Townsend); Nannini
nicked a point (John Townsend); first race, first
points - Herbert performed miracles (LAT)

however, the legacy of a wheel banging session into the first corners manifested itself when he pulled in with a cracked rear upright. That left Gugelmin to fly the March flag, and on his home ground he rose to the occasion splendidly. Like Patrese, he had hoped to make it through with only one stop, but he acceded to Ian Phillips' orders eventually and came in a second time, and was later relieved that he had. His 881 never missed a beat, and he narrowly missed out on passing Prost in the final laps. "The Honda was just too much for me on the straight," he explained after the most competitive showing of his Grand Prix career. If Prost was canny in timing his first stop for lap 14, one of the earliest, Johnny Herbert revealed that he, too, is possessed of some remarkable thinking ability as a race driver. He had come to Rio under a cloud of controversy as some stated openly that they felt he shouldn't be allowed to compete because of his incomplete recuperation from his Brands Hatch F3000 accident last August. Shrugging that and his personal discomfort aside, he impressed by outqualifying Benetton team mate Sandro Nannini throughout, and then drove brilliantly in the race. Realising he couldn't quite keep pace initially with Patrese, Mansell, Prost, Capelli, Warwick and Nannini, he cannily drove his own race, was the first Goodyear runner to pit, on lap 13, and benefited the most. By lap 20 he was fourth and moved up to third when Patrese finally stopped. It was a mature showing that dispelled any doubts about either his fitness or ability, and fully justified a tearful Peter Collins' faith in his protege, and there was even more to come as he closed on Gugelmin and Prost in the closing laps and followed them across the line. Afterwards he said his ankles were fine and that his only problem was an inoperative drink bottle, but that switching on his cool hat helped alleviate the discomfort. It was indeed a star performance, against which the sixth-placed Nannini appeared somewhat detuned. Rio marked the return of Brabham to the Formula One arena, and the Sergio Rinland/John Baldwin-designed BT58s proved particularly impressive when the ambient temperature was at its lowest. Both cars prequalified with ease, and Martin Brundle and Stefano Modena were in the top four each morning, only to lose out in official qualifying when their Pirellis became disadvantaged with the increased heat. They nonetheless qualified on row seven and were running strongly until

electrical and cv joint problems respectively sidelined them. While Alex Caffi was a surprise non-prequalifier after engine problems, Andrea de Cesaris ran well for Dallara until a recurrence of qualifying fuel pump problems dropped him from eighth, while similar irritations afflicted a revitalised Nelson Piquet in the new Camel Lotus 101. The Brazilian qualified in ninth and looked good initially before dropping away with failing fuel pressure, but after buzzing two Judds in qualifying team mate Satoru Nakajima looked little more than pathetic as he struggled to finish an undeserved eighth ahead of newboy Olivier Grouillard.



V8s still figure: Gugelmin was third, with Warwick's Arrows fifth (Keith Sutton)

As team mate Rene Arnoux failed to qualify with an imbalance in his new Ligier JS33, the F3000 graduate upheld team honour after an impressive struggle in a little-tested car made more difficult by a first corner assault by Luis Sala's Minardi. Grouillard had braked hard as his throttle momentarily jammed, and the Spaniard took off a wheel as he hit him. To make matters worse for Minardi, his team mate Pier-Luigi Martini lasted only a lap more before lower engine mount sheared. Through the mayhem, Jonathan Palmer produced yet another cool drive in the unloved but modified Tyrrell 017B



World Champion Senna only made waves on the air (Sporting Pictures)

to place seventh, despite the loss of a brake cooling duct at 170mph and the worry of one of his two throttle return springs breaking early on, while team mate Michele Alboreto had a troubled return to Uncle Ken's fold. His race was blighted by a recurrence of his qualifying trouble in changing gear, and then an exhaust split. He survived, however, to beat the recovered Senna to the line after the champion had had two stops to fix his McLaren's nose, and two for tyres. In marked contrast to Derek Warwick, Eddie Cheever had a miserable weekend, helped little by the tight fit he had to get into and out of his Arrows, and poor reliability that kept him to two laps at a time in qualifying. He was running ninth on lap 38 when he was rudely punted into retirement by Bernd Schneider at the end of the main straight, and collapsed twice with poor leg circulation as he tried to walk away. The German had scraped into a race for which team mate Aguri Suzuki failed to prequalify, leaving a trail of failed Yamaha V8s in his wake but seemed to be running reliably when the 891's front suspension failed and involved him with the American Osella and Rial made the race with a single car apiece, Piercarlo Ghinzani and Volker Weidler failing to prequalify, but Nicola Larini's occupation of 18th place was nullified by the black flag after he was adjudged to have lined up incorrectly on the grid. Christian Danner meanwhile, returning to the Formula One fold, lost a lot of time with a rear suspension problem and then stopped on his last lap with crownwheel and pinion failure. Larrousse Calmels didn't expect to qualify with its bulky Lola LC88D when the new LC88 couldn't be readied in time, but while Yannick Dalmas duly failed to get in, Philippe Alliot did and was delighted to achieve a 12th place finish on the debut of the glorious sounding Chrysler Lamborghini V12. Neither Coloni made the grid, nor did Joachim Winkelhock in the long AGS. He along with the too-new Moneyton Onyx ORE-1s failed to prequalify, while Gregor Foitek caused a sensation by getting through Friday morning's weeding out process in the Euro Brun, only to lose out on Saturday afternoon to engine failure. That performance, in its own way was a sign of star quality. Rio, however, became unexpected Ferrari property on race day, and what the McLaren's *should* have won, the fact is that they didn't. And, in many eyes, the championship as a result had got off to the best possible start... □

1989 FORMULA ONE GRAND PRIX ROUND ONE

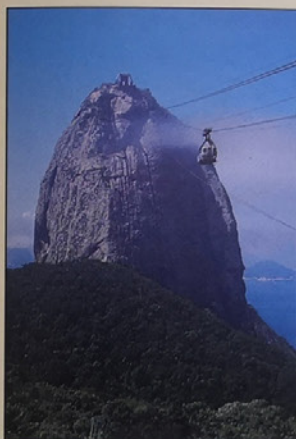
BRAZIL

Autodromo Nelson Piquet,
Rio de Janeiro

26th March 1989

Circuit Length: 3.127 miles/5.031 km

Laps: 61



Drivers' World Championship

Pos.	Driver	Total
1	Nigel Mansell	9
2	Alain Prost	6
3	Mauricio Gugelmin	4
4	Johnny Herbert	3
5	Derek Warwick	2
6	Alessandro Nannini	1

Constructors' World Championship

Pos.	Team	Total
1	Ferrari	9
2	McLaren	6
3	Benetton	4
4	March	4
5	Arrows	2

Official Starting Grid

Riccardo Patrese	1.26.172	6	1	Ayrton Senna	1.25.302
Williams-Renault				McLaren-Honda	
Thierry Boutsen	1.26.459	5	28	Cerhard Berger	1.26.271
Williams-Renault				Ferrari	
Nigel Mansell	1.26.772	27	2	Alain Prost	1.26.620
Ferrari				McLaren-Honda	
Derek Warwick	1.27.408	9	16	Ivan Capelli	1.27.035
Arrows-DFR				March-Judd	
Johnny Herbert	1.27.626	20	11	Nelson Piquet	1.27.437
Benetton-Ford				Lotus-Judd	
Mauricio Gugelmin	1.27.956	15	19	Alessandro Nannini	1.27.865
March-Judd				Benetton-Ford	
Stefano Modena	1.28.621	8	7	Martin Brundle	1.28.274
Brabham-Judd				Brabham-Judd	
Pierluigi Martini	1.29.435	23	22	Andrea De Cesaris	1.29.005
Minardi-DFR				Dallara-DFR	
Jonathan Palmer	1.29.573	3	38	Christian Danner	1.29.455
Tyrrell-DFR				Rial-DFR	
Michele Alboreto	1.30.255	4	17	Nicola Larini	1.30.146
Tyrrell-DFR				Osella-DFR	
Olivier Grouillard	1.30.410	26	12	Satoru Nakajima	1.30.375
Ligier-DFR				Lotus-Judd	
Eddie Cheever	1.30.657	10	24	Luis Perez Sala	1.30.643
Arrows-DFR				Minardi-DFR	
Philippe Alliot	1.31.009	30	34	Bernd Schneider	1.30.861
Lola-Lamborghini				Zakspeed-Yamaha	

Race Classification

Pos.	Driver	No.	Nat.	Car	Laps	Time/Retirement
1	N. Mansell	27	GB	Ferrari	61	1.38:58.744
2	A. Prost	2	Fra	McLaren-Honda	61	1.39:06.553
3	M. Gugelmin	15	Bra	March-Judd	61	1.39:08.114
4	J. Herbert	20	GB	Benetton-Ford	61	1.39:09.237
5	D. Warwick	9	GB	Arrows-DFR	61	1.39:16.610
6	A. Nannini	19	Ita	Benetton-Ford	61	1.39:16.985
7	J. Palmer	3	GB	Tyrrell-Ford	60	
8	S. Nakajima	12	Jap	Lotus-Judd	60	
9	O. Grouillard	26	Fra	Ligier-DFR	60	
10	M. Alboreto	4	Ita	Tyrrell-DFR	59	
11	A. Senna	1	Bra	McLaren-Honda	59	
12	P. Alliot	30	Fra	Lola-Lamborghini	58	
13	A. De Cesaris	22	Ita	Dallara-DFR	57	
14	C. Danner	38	Ger	Rial-DFR	56	
R	R. Patrese	6	Ita	Williams-Renault	51	Camshaft pulley
R	E. Cheever	10	USA	Arrows-DFR	37	Acc. with Schneider
R	B. Schneider	34	Ger	Zakspeed-Yamaha	36	Suspension/Acc. with Cheever
R	M. Brundle	7	GB	Brabham-Judd	27	Electrics
R	I. Capelli	16	Ita	March-Judd	22	Rear suspension
R	N. Piquet	11	Bra	Lotus-Judd	10	Fuel pump
R	N. Larini	17	Ita	Osella-DFR	10	Black flagged — illicit parking
R	S. Modena	8	Ita	Brabham-Judd	9	Driveshaft
R	T. Boutsen	5	Bel	Williams-Renault	3	Engine
R	P. Martini	23	Ita	Minardi-DFR	2	Lower engine mount
R	L. Sala	24	Spa	Minardi-DFR	0	Acc. with Grouillard
R	G. Berger	28	Aut	Ferrari	0	Acc. with Senna

Fastest Lap: Riccardo Patrese 1.32.507, 121.583 mph/195.786 km/h

Non Qualifiers

No.	Name	Car
29	Y. Dalmas	Lola-Lamborghini
25	R. Arnoux	Ligier-DFR
33	G. Foitek	EuroBrun-Judd
31	R. Moreno	Coloni-DFR

Non-Pre Qualifiers

No.	Name	Car
21	A. Caffi	Dallara-DFR
18	P. Ghinzani	Osella-DFR
39	V. Weidler	Rial-DFR
32	P. H. Raphanel	Coloni-DFR
41	J. Winkelhock	AGS-DFR
35	A. Suzuki	Zakspeed-Yamaha
36	S. Johansson	Onyx-DFR
37	B. Gachot	Onyx-DFR

1989 FORMULA ONE GRAND PRIX CHAMPIONSHIP — RACE NO. 2

RACE REPORT IMOLA

DAVID TREMAYNE



(Dominique Len)

Two races, two very different results. That was the sum of the Brazilian and San Marino GPs as the 1989 World Championship settled itself in. Each, in very different ways, had been something of a renaissance for John Barnard, out of the F1 limelight all through 1988 as he worked away on the normally aspirated V12 project.

In Rio his 640 version of the F1/89 had won. In Imola it didn't. Indeed, it couldn't even get close to the McLaren for which Barnard himself had once been responsible. On its home ground, however, on the newly renamed Autodromo Enzo e Dino Ferrari, the F1/89 was to be proved just about as thoroughly as it will ever have to be.

If Rio proved that Barnard hasn't lost his touch, and can still design innovative, winning cars, Imola proved that he can also build machines of immense structural integrity. When Gerhard Berger's car speared away from pursuit of Ayrton Senna, Alain Prost, Nigel Mansell and Riccardo Patrese as they sped through the daunting Tamburello for the fourth time, and slammed into the outside wall at around 170mph, observers feared the worst. The F1/

89 never made the turn, but went straight into the wall before spinning down it, coming to rest, and then bursting into a frightening ball of flame. Few could believe that he could survive, or that his injuries if he did would be anything but severe.

The day after the biggest accident of his F1 career, however, Berger discharged himself from the Maggiore Hospital in Bologna and headed back to Innsbruck for some plastic surgery, intent on rejoining the circus in Phoenix.

It was, without danger of hyperbole, one of those miracle escapes.

In the second Ferrari, Mansell had thrilled the tifosi with his chase of the McLaren early on, but in the restart he was beaten away by Patrese as well, and finally rolled to a halt after 23 laps with gearbox failure. His retirement ended a bad weekend for the Prancing Horse, in which not only the electro-hydraulic valves in the transmission had again played up, but gearbox casings had cracked.

There were those who believed Mansell had lost his taste for racing in the restart — and had he, nobody could have blamed him after seeing

his team-mate's accident — but the fact is Mr Mansell falls into the abnormally brave category, and he was pushing Patrese for all he was worth when his car gave up.

Testing the previous week had already indicated that, as last year, the Honda Marlboro McLaren would walk away. They'd run then for eight days, with eight different specifications of Honda V10 to try, and they simply wiped the floor with everyone else. Prost's best race time, the fastest lap of 1m 26.795s, was only a hair off his qualifying best and Senna's pole, such was their incredible pace. Thierry Boutsen had the third fastest race lap after Prost and Senna, but it was only 1m 29.571s...

There was thus no disguising that Honda Marlboro McLaren was right back on top. Suspicions that, but for Senna's impetuosity and Prost's lack of a clutch, the MP4/5s would have wiped up in Rio too, were also confirmed. So there was nothing unusual about their dominance, just something as breathtaking as it has ever been.

The real story of HMM at Imola, however, concerned the hasty departure of Prost after the race, fol-

lowing a blazing row with Ron Dennis. Now Prost is one of the most well adjusted people in motor sport. He knows exactly how good he is, can live with being beaten, and is dignified even when he is. Not for him the scream of 'Foul!'. And typically, even when rejecting questions from journalists afterwards, he was polite, almost apologetic. And yet you knew how badly he felt when he even refused to discuss things with his closest journalistic friends, Johnny Rives and Jean-Louis Moncet.

But what on earth had gone wrong? One could only speculate. Last year in Adelaide he had warned Dennis that he wouldn't tolerate the existing set-up into 1988, and his sole comment in Imola was "Orders were not observed". Nobody elaborated on what those orders might have been or who might have given them, but if all is not well in Dennis' Kingdom, there may yet be tears in Wonderland, and that might just prove the chink in the corporate armour.

Certainly, after Imola, that's what everyone else will desperately be hoping.

If Ferrari couldn't offer a true challenge to the McLaren, neither could Williams, and that hurt. In testing Patrese had managed similar race times to the MP4/5s, but come the meeting proper the FW12Cs

were as relatively breathless as the F1/89s, although the two contenders were very evenly matched themselves.

As he proved in Rio, Patrese has a new lease of life this season, and he was again the team's leader as he outqualified Boutsen. He ran third ahead of Mansell in the restart (although overall Nigel had an advantage from the first three laps of the stopped event) until once again the Renault V10 let him down — so suddenly that Mansell nearly ran into the back of the Williams as it bogged down in the Rivazza.

Boutsen, meanwhile, appeared to have put in a solid afternoon's work to come from a pit lane start to fourth following a puncture (probably from Berger's debris) just before the first race was red flagged. Then came a protest from Ligier, and he was excluded.

The French team had managed to qualify Olivier Grouillard an excellent 10th in its promising new JS33, although team-mate Rene Arnoux hadn't got in after a big shunt on Saturday morning. The F3000 graduate had been alongside the equally impressive Alex Caffi on the grid, but they had tangled as the red flags came out. Grouillard's undertray and rear wing were damaged; Caffi, like Boutsen, sustained a flat tyre. Against the rules, Ligier removed the JS33's rear wheels on the grid, to

fit a new undertray, and Grouillard was black flagged on his fifth lap.

Caffi and Boutsen should have been allowed to change their tyres on the grid, on safety grounds, but were told to push their cars to the pit lane by FISA's Roland Bruynseraede. That too is illegal during a restart, and Ligier protested on the basis of what's good for the goose, etc. Upshot: Boutsen was booted out of fourth, Caffi an excellent seventh. Both teams lodged justifiable appeals.

The performances of Caffi and Grouillard highlighted the surge of the new boys and the little teams in Imola. Piero Martini put the local Minardi 11th on the grid, while Nicola Larini breezed prequalifying and lined the Osella up 14th. Moreover, though Piero lost 11th place when fourth gear broke, Nicola fought the Osella up to a brilliant sixth by lap 42, before worn tyres dropped him back and, eventually, brought contact with the wall.

Then there was Gabriele Tarquini's performance as the AGS replacement for Philippe Streiff. The cheery Italian was right with Caffi, throughout the final stages of the race, as they staged the best battle, and provisionally took the final championship point upon Caffi's and Boutsen's exclusion.

Such unusual performances came against a backdrop that saw some of

Second Start — and Senna elbows Prost into second spot



(Sporting Pictures)

Rising st

(Keith Sutton)



the more established teams struggling. Both Benetton and March were in deep trouble trying to generate sufficient warmth in their tyres, and for a long time floundered in qualifying. This time, Sandro Nannini was in full control of his new team-mate Johnny Herbert, and the Italian eventually got the B188 going well enough for the seventh grid slot. In the race he found he could run comfortably at the Ferrari and Williams pace, and once the various dramas had been enacted emerged an easy, unruffled third.

Herbert was less fortunate. Running low downforce in Friday's rain, he spun terminally on his third lap and his meeting went downhill from then on. He should have finished around sixth, but spun out of eighth place on lap 30 and dropped to 14th after spinning while trying to rejoin. Capelli, like Nannini, eventually got his March 881 working better, but after qualifying 13th and heading the Italian on the first lap, he fell off on oil in the Rivazza on his second lap. Mauricio Gugelmin was only 19th on the grid and was badly delayed by a puncture before the loss of his clutch early on finally resulted in a broken transmission. Both teams had new cars testing before the race, and came away concluding they sorely needed them.

There was greater optimism at Arrows and Lotus, the two new challengers again proving well matched. Nelson Piquet's late qualifying burst that netted him eighth grid slot bumped Derek Warwick, but in the race the Englishman resumed battle as they chased each other just like they used to in F3. They carried on that way until the Brazilian was sidelined by Judd engine failure, but though he was himself using oil at a precarious rate and had a cracked exhaust, Warwick made it into the points for the second race running.

When Eddie Cheever qualified an excellent fourth in Friday's wet conditions it seemed his fortunes might finally be about to pick up, but Saturday brought a host of minor mechanical troubles that restricted him to 21st on the grid. Wringing everything from the A11, he climbed as high as sixth before his own cracked exhaust problem worsened, and he slumped to an eventual ninth. At least he was more comfortable in the car, however, after scalloping of the fuel tank had given him room to move, and at least he backed his team-mate better than did Saturo Nakajima. The Japa-



Clockwise from top: Gugelmin goes gardening (Sporting Pictures); No wonder Catli looks fed up — 55 laps for nothing (Dominique Leroy); Happy return — Tarquini's first point boosted AGS morale (John Townsend); Back to the drawing board? Only for Ayrton's adversaries (John Townsend)

Facing page, top: Stirring stuff from Palmer in the new Tyrrell (Keith Sutton); centre: No hold-up for Nannini, on the rostrum again (Sporting Pictures); bottom: Warwick looking forward for more points (John Townsend)



nese was once again unimpressive, and was classified 14th after losing many laps with electrical problems. Like Nakajima, de Cesaris, Sala and Ghinzani were overshadowed by their team-mates. The Dallara driver seemed to feel that in Arnoux's absence the mantle of baulking fell on his shoulders, and he successfully motored out of the gravel at Acque Minerali just as Sala became permanently bogged in it. The Spaniard had gone off trying to avoid the Italian's BMS 189...Ghinzie failed to prequalify.

In the Brabham camp, however, Modena and Brundle showed again how evenly matched they are. Ironically, after two cars had failed on him on Saturday, the Italian used

Brundle's to set his qualifying time — and went quicker than Martin had! In fairness, Martin was then scheduled to go out again, but the clutch packed up on Stefano before the Englishman got his second chance.

Herbie Blash was back in charge as team director, rejoining after a year's sabbatical with FISA, and yet again the cars started their weekend well by prequalifying with ease, only to go slower as qualifying went on. In fact, Modena's 1m 27.350s from Friday morning's 'rabbit hour' was his fastest all weekend, and had he been able to repeat it, would have netted him third slot on the grid. To add to the feeling of frustration, Martin felt he could have had a shot at the overnight pole had he followed his nose and used slicks right at the end as the track was drying out. Instead, Stefano lined up 17th, Martin 22nd after irritating problems, and they scrapped in the big crocodile that comprised Cheever, Herbert, Tarquini, Gugelmin and Nakajima. Modena, who'd been in trouble anyway with his brakes, lost it going through the right-hander down to Rivazza and came to rest

with a decidedly secondhand BT58. Martin didn't fare much better, struggling with appalling handling thanks to a detached diffuser and then dropping out with low fuel pressure.

Coloni was the one Italian team which didn't show a measure of promise. Pierre-Henri Raphanel crunched Roberto Moreno's intended race car when he failed prequalifying, then Roberto couldn't wrestle the horrible FC188B into the race. He thus joined Alboreto, Arnoux and Christian Danner, whose Rial wasn't generating good tyre temperatures, on the Sunday sidelines. Already, prequalifying had also weeded out the improving Onyx ORE-1s, Foitek's bravely driven Euro Brun, Winkelhock's fifth-gearless AGS, Weidner's mechanically ravaged Rial and the desperately misfiring Zakspeeds.

Fortunately for Gerard Larrousse, his debutant Lola LC89s didn't have to prequalify, but Philippe Alliot and Yannick Dalmas nonetheless had an awful time. A last minute swap from Magneti Marelli to Bosch electronics — Larrousse wanted to try both, Magneti Marelli said make your mind up one way or the other — created teething glitches from which they never recovered. Dalmas' car wouldn't fire up for the first start, and by the time it did was denied the restart, while Alliot managed no official laps as he never actually crossed the start/finish line during his very brief 'race'.

At one stage it seemed that the new Tyrrell 018 would have a similar fate on its debut, a whole host of niggling new-car problems preventing Michele Alboreto from qualifying the sole example completed in time. However, Jonathan Palmer had got in with his 017B, so the new car was substituted. Its set-up was changed drastically overnight, and the restart allowed the team to adjust out ferocious oversteer which had spun Palmer on the opening lap at Tosa. Thereafter the Doc was flying. Rising to the occasion, he pulled the fat from Tyrrell's fire by charging to an excellent sixth (possible fifth if the appeals are rejected) as the sleek new Harvey Postlethwaite/Jean-Claude Migeot design got faster and faster.

It was good to know that, if even winner McLaren had some serious internal problems to mar its day, one team went home from San Marino with its tail well and truly up. And, to be honest, after 1988 very few begrudged the fact that it should be Uncle Ken's.

1989 FORMULA ONE GRAND PRIX
ROUND TWO

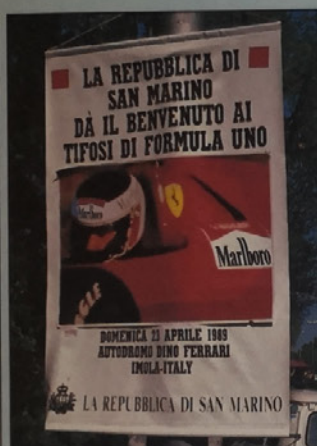
SAN MARINO

Autodromo Dino Ferrari,
Imola

23rd April 1989

Circuit Length: 3.132 miles/5.040 km

Laps: 61 (reduced to 58)



Official Starting Grid

Ayrton Senna McLaren-Honda	1.26.010	1	2	Alain Prost McLaren-Honda	1.26.235
Nigel Mansell Ferrari	1.27.652	27	6	Riccardo Patrese Williams-Renault	1.27.920
Gerhard Berger Ferrari	1.28.089	28	5	Thierry Boutsen Williams-Renault	1.28.308
Alessandro Nannini Benetton-Ford	1.28.854	19	11	Nelson Piquet Lotus-Judd	1.29.057
Alex Caffi Dallara-DFR	1.29.069	21	26	Olivier Grouillard Ligier-DFR	1.29.104
Pierluigi Martini Minardi-DFR	1.29.152	23	9	Derek Warwick Arrows-DFR	1.29.281
Ivan Capelli March-Judd	1.29.385	16	17	Nicola Larini Osella-DFR	1.29.488
Luis Perez Sala Minardi-DFR	1.29.503	24	22	Andrea De Cesaris Dallara-DFR	1.29.669
Stefano Modena Brabham-Judd	1.29.761	8	40	Gabriele Tarquini AGS-DFR	1.29.913
Mauricio Gugelmin March-Judd	1.30.163	15	30	Philippe Alliot Lola-Lamborghini	1.30.168
Eddie Cheever Arrows-DFR	1.30.233	10	7	Martin Brundle Brabham-Judd	1.30.271
Johnny Herbert Benetton-Ford	1.30.347	20	12	Satoru Nakajima Lotus-Judd	1.30.697
Jonathan Palmer Tyrrell-DFR	1.30.928	3	29	Yannick Dalmas Lola-Lamborghini	1.31.137

Race Classification

Pos.	Driver	No.	Nat.	Car	Laps	Time/Retirement
1	A. Senna	1	Bra	McLaren-Honda	58	1.26.51.245
2	A. Prost	2	Fra	McLaren-Honda	58	1.27.31.470
3	A. Nannini	19	Ita	Benetton-Ford	57	
4	D. Warwick	9	GB	Arrows-DFR	57	
5	J. Palmer	3	GB	Tyrrell-DFR	57	
6	G. Tarquini	40	Ita	AGS-DFR	57	
7	E. Cheever	10	USA	Arrows-DFR	56	
8	A. De Cesaris	22	Ita	Dallara-DFR	56	
9	J. Herbert	20	GB	Benetton-Ford	56	
10	N. Larini	17	Ita	Osella-DFR	52	
R	M. Brundle	7	GB	Brabham-Judd	51	Fuel pressure
12	S. Nakajima	12	Jap	Lotus-Judd	46	Still running
R	L. Sala	24	Spa	Minardi-DFR	43	Acc. with De Cesaris
R	M. Gugelmin	15	Bra	March-Judd	39	Transmission
R	N. Piquet	11	Bra	Lotus-Judd	29	Engine
R	N. Mansell	27	GB	Ferrari	23	Gearbox
R	R. Patrese	6	Ita	Williams-Renault	21	Engine
R	S. Modena	8	Ita	Brabham-Judd	19	Accident
R	P. Martini	23	Ita	Minardi-DFR	6	Gearbox
R	O. Grouillard	26	Fra	Ligier-DFR	4	Black flagged — illegal repairs
R	G. Berger	28	Aut	Ferrari	3	Accident
R	I. Capelli	16	Ita	March-Judd	1	Accident
DNS	Y. Dalmas	29	Fra	Lola-Lamborghini	0	Did not start
DNS	P. Alliot	30	Fra	Lola-Lamborghini	0	Electronics
DQ	T. Boutsen	5	Bel	Williams-Renault	57*	Restart infringement
DQ	A. Caffi	21	Ita	Dallara-DFR	57*	Restart infringement

*Subject to appeal

Fastest Lap: Alain Prost 1.26.795, 129.895 mph/209.044 km/h

Non Qualifiers

No.	Name	Car
4	M. Alboreto	Tyrrell-DFR
25	R. Arnoux	Ligier-DFR
38	C. Danner	Rial-DFR
31	R. Moreno	Coloni-DFR

Non-Pre Qualifiers

No.	Name	Car
37	B. Gachot	Onyx-DFR
33	G. Foitek	EuroBrun-Judd
18	P. Ghinzani	Osella-DFR
36	S. Johansson	Onyx-DFR
41	J. Winkelhock	AGS-DFR
32	P. H. Raphanel	Coloni-DFR
35	A. Suzuki	Zakspeed-Yamaha
34	B. Schneider	Zakspeed-Yamaha
39	V. Weidler	Rial-DFR

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Grand Prix

BY NIGEL ROEBUCK



Jean-Pierre Jabouille with the fruits of Dijon victory (LAT)

France's real hero on the day — Rene Arnoux (LAT)



"The best day of my career?" Jean-Pierre Jabouille had no need to think really. "Well... Dijon - it must be. For me everything came together in the one race: first Grand Prix win for Renault, first Grand Prix win for me, pole position... and in France! Fantastic, really. Everyone dreams of it, no?"

Jean-Pierre always had the look of a man who'd walked under too many ladders. He was silent for a few seconds. "The sad thing for me," he ruefully grinned, "is that no one remembers who won the French Grand Prix in 1979 — only the fight for second place! Even an hour after the race I felt that. And when I saw the video, I was not surprised..."

Mario Andretti, in rather more feisty style, always felt the same way about Fuji: "I won the race, right? My first in Lotus — a big day for me. But who the hell else remembers? Right afterwards I'm in the garage area, and all everyone sayin' is how Niki quit, and Hunt won the goddam championship!"

The Japanese Grand Prix of 1976, however, was one thing. The French of '79 has passed into motor racing folklore. In its closing minutes David Hobbs commentating for CBS, was virtually lost for words. "I have never seen anything like this in my life — not in open wheel racing," he spluttered. "I mean, you'd think they had stock cars out there..." As and when Rene Arnoux retires, there will be stories written about his long career, about his working-class background, struggle through the ranks, season in the vanguard of Formula One with Renault and Ferrari, years of decline with Ligier. There will be appropriate tribute to his seven Grand Prix wins, but none of these will spring instantly to mind at the mention of his name. No, for ever, "Arnoux" will say Dijon '79 — and the battle with Gilles Villeneuve.

It was the eighth round of the World Championship, and when they came to the French Grand Prix Jody Scheckter led on points, tailed by Jacques Laffite and Villeneuve.

It had been a strange kind of season thus far. Lotus, dominant the year before, were nowhere, and the first couple of races, in Argentina and Brazil, had fallen readily to Laffite's Ligier JS11, superbly effective in the new 'ground effect' tradition. Then, at Kyalami, Ferrari's new T4 appeared, and Villeneuve and Scheckter finished 1-2, which result they duplicated at Long Beach. At Zolder it was Jody's turn, this more by reliability than pace, but at Monte Carlo he won squarely.

The only intrusion into the trio's domination had come at Jarama, where Depailler's Ligier had triumphed. But now Patrick was out of the picture, lying in a Paris hospital with dreadful leg injuries after a hang-gliding accident.

Serious threat to Jody; Jacques and Gilles came from two quarters only. Patrick Head's lovely new Williams FW07 had to win a race soon, with Alan Jones. And Renault — at that time still the only turbo team — were going to be a threat at any circuit with straights worth the name. Dijon was one such.

Reliability apart, throttle lag was still the abiding Renault problem. At Monaco Arnoux and Jabouille had made up the back row of the grid, embarrassing anywhere, but especially so at a French race. A good showing at Dijon was vital to the Regie.

And there the grid was turned on its head. This time the yellow cars had the front row to themselves. At Dijon the cars had twin KKK turbochargers, which markedly improved torque and, more importantly, throttle response. With their power advantage, they could run more wing than the rest, and seemed in a class of their own — until Villeneuve produced a stunning lap to join them in the 1:07 bracket. No one else was close. This would be Gilles against the home side.

"They're only two or three kph quicker than me through the speed trap," he commented after qualifying, "and usually it's about 15kph, so they're using a lot of wing. That's where they're making up the time here — through the turns."

"I need a win here," Villeneuve went on, "to close the gap on Jody. I'm not interested in three or four points. If Jabouille once gets into the lead, I think it'll be impossible to catch him, so I have to make a good start. Somehow I must at least split the Renaults on the first lap..." He did better than that. Both yellow cars got away reasonably well, but the red one sliced between them on the run down to the first turn. And a missed gearchange dropped Arnoux back to ninth.

In the opening stages we had Gilles in his element, at his purest, running away from Jabouille at a second a lap: "It was all I could do — go for it. We had very little downforce, and I knew I was hurting the Michelins, but what was the alternative



Everyone's hero — Gilles Villeneuve (LAT)

— run third all the way, and go to sleep?" There are people who drive racing cars, and there are racing drivers.

The French Grand Prix fell into predicted shape finally on lap 15. Still it was Villeneuve from Jabouille, but now Arnoux had the other Renault up into third place, having picked off such as Jones, Laffite, Lauda, Jarier, Piquet and Scheckter with relatively little problem. For Gilles the auguries were not good. Sixty-five laps remained, and he had no one working in his corner. Still, he charged on. "If you can build up a lead," he said, "you just might unsettle the other guy, make him put pressure on himself."

Jabouille, though, was in calm frame of mind, playing the race like the dedicated fisherman he is, paying out a little, reeling in. He knew the extent of the Renault's superiority, could maintain the gap to the Ferrari without breaking into a sweat. As the 30-lap mark approached, Villeneuve's lead was pared away: "I looked in my mirrors, and knew I had company..."

Taking absolutely awesome chances through lapped traffic, Gilles pulled out to four seconds again, but by mid-race his tyres had run up the white flag, and the T4 was all over the place, understeering on left-handers, oversteering on right. By lap 46 Villeneuve had no more cards to play, and Jabouille swept by him at the end of the



Villeneuve goes to work... (LAT)

... And so does Jabouille (LAT)



straight. Gone. "I could tell his tyres were finished when I passed him," Jean-Pierre said. "How he got to the end on them, I'll never understand..."

In the Ferrari pit, though, they were getting new Michelins ready for Gilles. Scheckter — lapping at nothing like his team mate's pace — had already been in for a change. But Villeneuve stayed out. All right, nothing could be done about Jabouille, but now Arnoux was chipping away at the 15 seconds separating him from second place. With 10 laps to go, Rene had the gap down to four, and Gilles looked like tethered prey. And as they went into the last five laps the cars were as one.



Opposite top: Arnoux in hot pursuit

(LAT)

crowd now roaring in frenzy, Rene seemed to have it done. Into the uphill hairpin he felt sufficiently confident of his advantage to take the wide, conventional, line in. Gilles, braking later than late, put the Ferrari through the open door. Now the issue was settled.

In the midst of all this, 15 seconds up the road, Jabouille was coming in for a momentous victory, but his tragedy was that everyone was looking behind him, waiting, waiting. Then it was red-yellow — a blink — over the line. And as they cruised into the slowing-down lap, Villeneuve gave a wave of comradely respect, immediately acknowledged by Arnoux.

We should have expected nothing else. It had been ragged, it had been wild and frantic, but it had been also entirely fair and clean. "I don't know how many times we touched," Gilles said, "but I know it never happened because one of us was trying to put the other off the road."

"It was fun!" he giggled. "A real battle. I thought for sure we were going to get on our 'cads, you know, because when you start interlocking wheels it's very



Left: Renault goes off into the record books

(LAT)

easy for one car to climb over the other. But we didn't crash; it was OK. And I never enjoyed a race more." Rene says the same to this day.

At Silverstone, the next race, Villeneuve and Arnoux were grilled at a Grand Prix Drivers' Association meeting by a selection of Formula One's elder statesmen. Lauda, Fittipaldi, Scheckter and others called them irresponsible, stupid.

"From where they were," Gilles drily commented afterwards, "what the hell did they know? I couldn't believe the things they were saying. Jesus, they're supposed to be racing drivers..."

Andretti, predictably, was not among the critics. As the racer's racer, his response was swift and to the point. "Nothing to get worried about," he said. "Just a couple young lions clawin' each other." For most of us, that said it best. Ten years on, we have seen nothing like it since. ■

Below: But these are the two whose race lives on in the memory

(LAT)

Below: Historic moment — but everyone was waiting for the other two

(LAT)



Those closing minutes of Dijon '79 beggar description. At the end of lap 70 Arnoux came by ahead, and in the stands there was delirium. That was that, we said. Gilles had gallantly carried the battle to the Renaults, and the gamble had failed.

But Villeneuve was not like that. "When Rene passed me," he said, "I thought he'd run away down the straight, like Jabouille had. I was in really bad shape with handling, but still I could stay with him — so he had to have a problem, too."

He had. In the closing stages, the Renault's fuel pick-up had begun slightly to falter. "I thought I'd try to get him back as soon as possible," Gilles explained, "because he wouldn't be expecting it. At the end of the pit straight I wasn't really close enough, but I went for the inside and left my braking really, really, late..."

Smoke plumed from all four tyres as the Ferrari scabbled inside the Renault, and they went round the right-hander side by side.

No one — not even the drivers themselves — really knew how many times in those last couple of laps the two cars passed and repassed, how many times they banged wheels, slid wide, went off the road, rejoined, touched again. It was desperate in a manner perhaps not seen in Grand Prix racing before or since. Halfway round the final lap, with the





Doctor's Orders

BY ROGER CHOWN

It takes F1 cars about 90 seconds to lap the Imola circuit. In a blazing car much less time would be needed to die. Gerhard Berger owes his life to a number of people — the designers of the Ferrari's monocoque, the manufacturers of the flame-proof overalls, the firemen who put out his blazing Ferrari. Most of all he should be grateful to the team of doctors who knew how and when to remove him from his car, exactly what to do to maintain his life and what precisely had to be done with him when he arrived at the circuit hospital covered in petrol, burnt, with orthopaedic injuries, concussed and unaware that he had survived one of the most terrifying accidents seen in Grand Prix racing for many years.

In charge of the medical services is a Neurosurgeon. He is not just any neurosurgeon but one of the most eminent men in his field and one of the most respected men in Grand Prix racing. He is Professor Sidney Watkins, MD, FRCS. To his friends he responds to 'Sid' or 'Prof'. He is a man with a major sense of humour, outstanding skill and a quite ruthless sense of purpose when it comes to safety in GP racing.

A weekend in the company of doctors was always going to have its moments. For the San Marino Grand Prix there were three 'public' ones — two shunts in practice involving first Rene Arnoux then Gerhard Berger, and the massive and massively publicized furnace that so nearly ended in tragedy. Examination of all three was to provide a clear view of what is involved in saving drivers' lives.

At 6 a.m. on Friday a team of doctors and nurses assembled at the medical centre, located at the entrance to the pit lane. They were headed by Italian Doctor Piana. Sid Watkins began his inspection at 6.30 a.m. Firstly the Centre itself was scrutinized in great detail. It comprises a 'casualty' ward with four beds, an intensive care ward, an X-ray room and an operating theatre; the components were checked against a prescribed list — from the basics of ensuring that there was light, water, electricity etc., to the more complex rituals of testing calipers, scalpels, respirators, defibrillators etc., this mini hospital's inventory was matched to FISA regulations. There were some revealing items on the checklist — the security of the hospital, the proximity

of the medical helicopter to the centre, the access of ambulances to the circuit and the centre, the communications equipment so vital in the event of an emergency.

The Centre itself examined, the personnel list was then checked. The Centre doctors included specialists in general surgery, anaesthetics, chest burns, neurosurgery, orthopaedics and paramedics. The track doctors were all anaesthetic doctors — a total medical staff of 32, all unpaid volunteers.

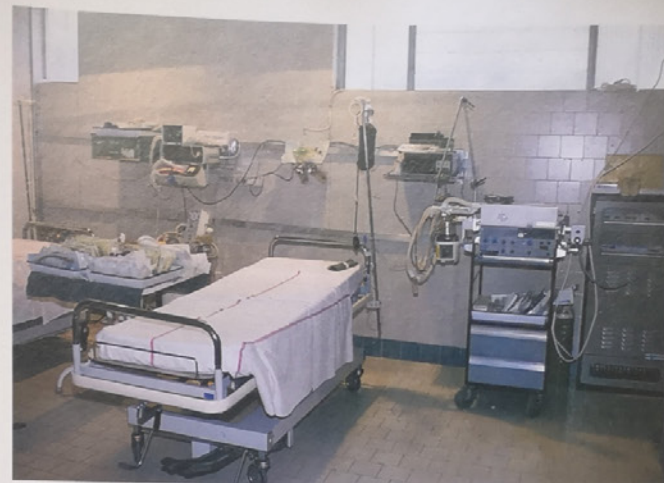
Mario Casoni used to be a professional sports car driver — his task for the weekend was to drive Sid Watkins and the charming English-speaking Doctor Federico Baccarini. After everyone in the centre had been checked and their credentials ascertained, the track be-

came the focus. At Imola there are ten mini-medical units each comprising at least one doctor, an ambulance and in the case of four of them fast cars — interception vehicles to get the doctors to the scene immediately. When added to the fast cars behind the starting grid, the statistics were impressive — a 'fast car' medical unit could reach the scene of an accident within 30 seconds. If you have ever wondered why course cars are seen to be driving at very high speeds round a circuit when practice sessions are finished, consider this: Mario Casoni's first 'quick' lap was 2 minutes 43 seconds. "Too slow" said Sid. 2 minutes 37 seconds, then 2 minutes 30 seconds. These were the improvements as driver and car became attuned. On race day with more tyre pressure, the circuit was completed in 2 minutes 28 seconds. Reaching the accident quickly is the key to saving lives as Gerhard Berger was to discover. Practice for these drivers is as critical to life-saving as practice is for G.P. drivers, in their chosen profession. 'Prof' toured the circuit to check that the team were in place. Each of their ambulances had been looked at, each piece of equipment checked, the routine was established. Inside Professor Watkins' own car was a mobile medical kit, an orange box containing every form of hand-held device of which one of the most important is the laryngoscope, a device for opening the throat so that an airway can be inserted with a balloon on the end so that if the patient vomits he doesn't aspirate the vomit into the lungs. A big mouthpiece for oxygen is used, "large for racing drivers because they all have big mouths", quipped the Professor. He has his own kit of which scissors and seat-belt cutters were two important items.

"The most potentially dangerous part of a Grand Prix is the start which is why medical cars follow the first lap. Apart from this the last 15 minutes of timed qualifying on the last day is the most likely time for an accident to occur".

I wondered why the track doctors were all anaesthetic specialists — "theirs is the critical life-support function. They are not there primarily to provide a pain-killing role".

With just 40 minutes or so remaining of untimed practice on Friday, conversation about medicine were abandoned in favour of practical application: the red flag came out to halt the session. With eyes carefully looking behind to ensure that no Grand Prix car was 'live' on the circuit, Mario gave a demonstration of his experience as the Prof's car hurtled towards the incident. In contact with the Control Tower by radio, and the conversation audible to all the



trackside service points it was learned that Arnoux's Ligier had hit the armco hard on the far side of the circuit. By the time the first medical interception car reached the Frenchman, 25 seconds had elapsed. By the time the 'Prof's' team reached the scene 104 seconds had gone by. Arnoux was out of his car, his helmet off and seated in the back of the first car, having been checked for basics. He appeared fine. The ambulance — the secondary vehicle — had already arrived and Mon. Arnoux was taken immediately to the Medical Centre. From impact to examination at the Centre for a full check of all functions, the time taken was just 4 minutes and 8 seconds.

He was unharmed and re-appeared in



Facing page

Top: Race control — the nerve centre of a Grand Prix. All circuit services are in direct contact with this unit (LAT)

Below: Ron Dennis and 'Prof' Watkins — both McLaren drivers visited the medical centre (LAT)

Top: The Emergency Ward at the Imola circuit (John Townsland)

Above: 10 minutes before the start — Professor Watkins and Mario Casoni (John Townsland)

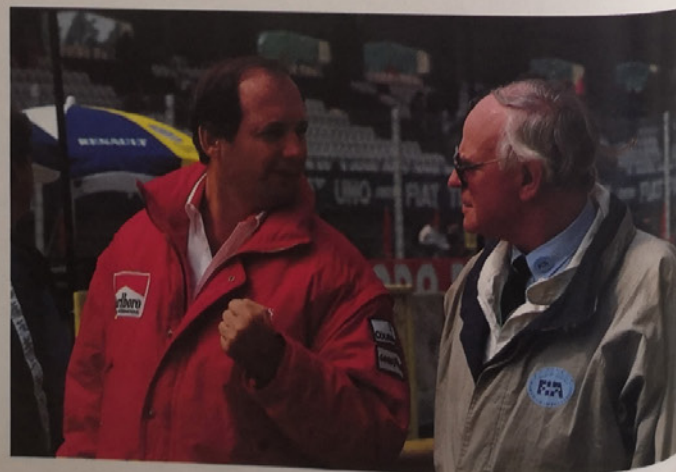
his spare Ligier before the end of the session.

"There is no better rehearsal than the real thing" Sid had remarked. Mario Casoni felt he could have been quicker, Sid Watkins had not disagreed.

In Brazil, Prof. Watkins had been driven by Wilson Fittipaldi, former F1 pilot. To gain the 'special' experience needed to be Sid's driver it was suggested that Mr. F. should take his medical car round behind the saloon car race. The Clerk of the Course agreed. By the first corner, Wilson was up to 16th place out of 33. By the end of lap 1 he was in front. The Brazilian crowd, who had never seen a medical car take the lead in a race before, went wild. The Clerk of the Course was not amused. "I just did what you told me" said Fittipaldi — "you asked me to do what I normally do when I drive Professor Watkins so I did!"

"Nelson Piquet wasn't very amused when I told him he couldn't drive after his practice shunt here two years ago. He was even less so when I told him the reason. He turned up in racing overalls saying that he hadn't been concussed, had all his faculties and should race. So I asked him why he had 'forgotten' to put on one of his racing boots!" "Concussion is dangerous because it's unpredictable" — he added later.

When Gerhard Berger had his practice shunt at virtually the same spot as Arnoux, there was momentary confusion before the Watkins car was released. Later in a simple 'post-mortem' the 'rules' were re-defined by official race boss FISA's Roland Bruynseraede with the forceful consent of Chief Steward John Corsmit — "the moment the red flag is out the medical cars go, irrespective of whether the cause of the stoppage involves a driver's safety". Berger too was declared fit.



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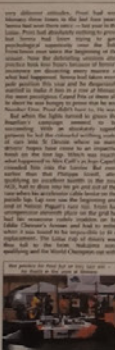
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Right: Roland Bruynseraede — amongst many other duties he has the responsibility to start every Grand Prix (IAT)
Below: Gerhard Berger in safe hands — the speed of the rescue services was very impressive (Dominique Leroy)

Roland Bruynseraede is like Sid Watkins; persuasively powerful. He is also a decision maker. Within the control tower is a room containing a bank of TV monitors which enables Race Controllers to see every part of the Circuit at all times. Manned by keen and practised eyes each screen is studied assiduously. In the case of Rene Arnoux's shunt Mr. Bruynseraede had made the decision to halt proceedings almost before the car had stopped. "He hit the barrier very hard — why take a chance?" Like all recipients of good decisions this directness is of critical relevance to the medical services and to Sid Watkins in particular. "Roland and I work well together. We both have the same interests at heart and I know he listens to what I have to say". The feelings seemed to be mutual.

Why then had Professor Watkins, Roland Bruynseraede (and before him Derek Ongaro) and other senior officials of FISA's Medical and Safety Committees had to work so hard to enforce their views and why weren't all circuits mandated to provide 'total' medical safety services?

"All circuits are rated for the services they supply — at the end of each race I have to complete a document which marks each aspect of every Grand Prix's medical services — it is comprehensive. Circuits which constantly fail in some areas could lose their Grand Prix status. This fact alone usually ensures that improvements are made. But it is really up to everyone involved to lobby for the services they want." Despite a specific request from FISA only three drivers had inspected the Imola Medical Centre by the end of the Friday session. Ayrton Senna, of his own volition, and Alain Prost who had been 'lean on' by Professor Watkins, did make a tour on race day. Senna left quickly. Alain Prost was asked what he thought of the services.

"I think this is the best we can have at a race track and would like to think we could have this at every circuit. I will try to visit the Medical Centre at each race from now on".

It is perhaps hard to take too seriously the 'demands' of drivers concerning safety and medical care if the bulk of them do not know what is done. At Imola there were a few drivers who did come to look, which in an ironic way made the Messrs Watkins and Bruynseraede point more telling: if the drivers can't be bothered...



The final 'check' at Imola was The Maggiore Hospital, one of the six hospitals which could be used if needed. It too was impressively organized with beds put aside specifically for GP drivers. It was hoped they would not be needed.

Sid Watkins was at all times calm through all proceedings. "Biggest problem for me can be boredom — I might go to sleep". (A careful scrutiny did in fact reveal that absolutely nothing in the race, or for that matter in the practice sessions had been missed by FISA's Medical Supremo.....)

On race day Dr. Federico Baccarini did admit to some tension. Not so the Professor.

They reached Gerhard Berger just 27 seconds after getting the red flag. A mere 14 seconds had elapsed before the fire marshals put out the fire which threatened to engulf the driver. With the news that Berger's life was not in immediate danger, the whole team, re-equipped was back in place ready to restart, after just 32 minutes. One small detail became significant later on. Before the race, Sid had asked for an intravenous drip to be prepared and put inside his car. It was. It was used. It saved maybe another 20 seconds. Mario Casoni didn't laugh when he returned, no-one did. He was however happier with his performance and the pat on his back from the Professor made clear the doctor's view. "Is life-saving a vocation?" I had asked.

"No, an instinct really." Sid had replied. "Had motor racing given medicine anything?"

"No, we simply apply medical practices to the circumstances."

A description of one aspect of the techniques used in motor-racing accidents was summed up thus:

"The cardinal rule is for every step taken to remove the driver, to be thought out."

For a man who knew at eight years of age that he wanted to be a neurosurgeon, 'thinking out his problems' has never been one. He has had authority from Bernard Ecclestone since 1978. One can only guess that he has exercised it since his youngest days. This man is in a job where no-one questions the Doctor's orders.



A book written by Professor Watkins in which he relates some of his more amusing experiences in Grand Prix motor racing will be published later in the year. Provisionally entitled Doctor Watkins' G.P. Casebook, it will be published by First Formula Publishing.

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LIGIERS INTERNATIONAL BLEND



JOHNNY RIVES

Guy Ligier, once a Grand Prix driver himself, has been a Formula One constructor since 1976, with eight World Championship race wins between 1977 and 1981. Hard times since then, and hardest of all in 1988, with not a single point in 16 races. Can changes all-round revive French fortunes? Johnny Rives of France's world-famous newspaper *L'Equipe* sees signs of hope.

The track was wet. It had rained till late into the previous night. "No real problem", said Olivier Grouillard. "All we want to do is take some good readings at constant speeds on the straight."

Mission impossible: once again the Ligier team was up against telemetric equipment that would not work on a Formula One car. It was taken off to be sent back to its maker in the United States. What to do next? An important piece of the Ligier's bodywork, the engine cover, had been redesigned, lowered considerably in relation to the one used for the Brazilian Grand Prix. Should they do a back-to-back test?

With the track still wet, no such comparison could be made, so the decision was taken to work on the "Penske-style" suspension, the point being to accustom engineer Anderson to the technical demands of Formula One which are rather different from the ones he knew in Indycar racing.

The 1989 Ligier JS33 has a hydraulic system which is the brainchild of former Penske engineer Ken Anderson, a young, tubby American who has taken himself off to France to answer Guy Ligier's call. The French constructor has done a lot of recruiting beyond the national frontiers in the bid to revive his racing team. As Ligier's Formula One section was moving from Vichy to Magny-Cours, beside a track that has been magnificently rebuilt, so too there was an enormous shake-up in the Ligier personnel. Many of the mechanics gave up Formula One rather than transplant their families from Vichy to Nevers (60 miles!), and the result has been the rejuvenation of the workforce by the hiring of new hands.

Where the technical staff are concerned, Michel Beaujon is the only one to have stayed on in the wake of the resignations of Michel Tetu and Claude Galopin in early summer 1988. Ligier at that stage was offering jobs right, left and centre. Net result: Andy Willard left McLaren to take over research and development. And Ken Anderson, who had created that original Penske suspension system, crossed the Atlantic to set up on the old Continent — not just a move down the road from Vichy to Nevers, but for Anderson a major change of scenery.

(A7)

Ligier's keenest wish was to appoint a technical expert to design a competitive Grand Prix car. He thought he had one in Frank Dernie, wrested away from Williams in the summer — the move that provoked Tetu's resignation. But Peter Warr was also in the market for someone of that quality to replace Gerard Ducarouge, and his powers of persuasion stopped Dernie crossing the Channel and took him to Lotus instead. Ligier got the bad news in October. Rumour had it that Ligier was offering a crock of gold in the desperate effort to attract a designer of proven talent. Ferrari had set a bad example there, spending millions to secure the services of John Barnard. Ligier hoped to tempt one of the big names from McLaren: Steve Nichols, or Bob Bell, but all his efforts were in vain. He eventually unearthed his latest recruit in Italy: Ricardo Divila, a multi-lingual Brazilian who can act as link between Anglo-Saxon backroom staff and very French mechanics. And one whose experience stretches back beyond the Formula One Copersucars run by the Fittipaldi brothers — Divila started out with them in Formula Two at the start of the Seventies. Anderson, Willard, Divila, Beaujon: that is the international blend Ligier had got together on the eve of the 1989 championship. A pretty varied collection, no question: but good or bad? Only time and experience will tell; the JS33 was designed and built while that team itself was being assembled, with Beaujon the only one to work on the car from start to finish. The rest had to pick it up more or less on the run.

On a soaking wet Paul Ricard circuit, the last of the blue cars throws up great sprays of water from its huge tyres. It is early — very early — in the day. Now and again the sun breaks through the clouds — good weather on the way? Grouillard is looking for his latest possible braking points. Ligier's latest recruit, making his Formula One debut, Grouillard seems untroubled by the lack of grip. Shrill cries of complaint from the Ford-Cosworth engine as he comes down the box: for a moment, the wheels threaten to lock up. Grouillard changes his line in a flash, gathers up the car and steers it down the escape road.

Not a word from Guy Ligier, his face, often worried by a nervous twitch in moments of stress, impassive this time. A former rugby player himself, he clearly has a lot of time for Grouillard, who comes from Toulouse, France's rugby capital. There is something reassuring about this 28-year-old: if not the physical presence of a second-row forward, he has a winger's solid build. And his speech is both level headed and coloured by the



Top: Late night line-up: Ligier in Brazil (LAT); Right: Guy Ligier hears Arnoux out (John Townsend)

PHOTO DAVID SEIDNER



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South Western accent. He has a good face, too — a quiet, lived-in look behind that extraordinary nose.

In February Grouillard had told me quite openly: "Ligier is looking for a new spirit from me, a new dynamism. Maybe my very naivete will help some things alone. Alongside Arnoux, I think I can be a useful complement to the Ligier team." The JS33 had not yet seen the light of day. Speaking about the car to come the Toulouse driver wisely opined: "No way of telling whether the JS33 will be competitive or not — even if it looks good. And even if a lot of enthusiasm has gone into the building of it. In theory we have at least as much potential as Arrows, Dallara, Minardi, Tyrrell and others: it's up to us to put ourselves at the front of that group of Ford Cosworth users."

Now the car has raced we can say a little more about the virtues and defects of the JS33. Conventional in design, and healthy enough looking, the car with its generous and rather bulbous shape is surprising when seen beside such daring creations as the Arrows or the Zakspeed. There was one handicap in Brazil: the car hadn't turned a wheel before the Jacarepagua challenge. The consequence was that one of them, Arnoux's, failed to qualify. Grouillard surprised us all by adapting so quickly and in the race his solid effort was rewarded with ninth place. He had achieved his aim of getting to the finish of his first Grand Prix, "to thank the designers and the mechanics for the huge amount of work they had put in over the winter."

How did he analyse the result? "I was always on the defensive. Making my debut on such an impressive circuit, I wanted to prove I could take things carefully. The fact that I was using Arnoux's car (mine had electrical problems) only served to make me all the more cautious. Taking the car's potential into account, I would say I lost about 30 seconds over the race. If I had driven as I did last year in Formula 3000, the car was good enough to challenge Palmer for 7th place."

In France, after the dreadful season the blue cars had in 1988, the general public was inclined to see 9th place for Ligier in Brazil as a pretty good result. But that is not how Guy Ligier saw it! "For Grouillard, yes. For his Formula One debut he put up a very good performance on a different track, and he deserves full praise. I have to be harder on our car: judging by its showing in Rio it may not qualify in Imola. Alright, it was the first time the car had turned a wheel. It was probably a long way short of what it can really do."

Top: Grouillard — "a quiet, lived-in look" (Dominique Leroy); Centre: Head down as usual — Arnoux in Brazil (De Vries); Right: Eyes left — Grouillard sizes up F1 (John Townsend)



The JS33 looked a little on the bulky side. "True enough", admits Ligier, "It does look as though we could cut down on the frontal area. I would love to have my own wind tunnel to work on that side as the top teams do. The JS33 was put together after a month and a half's work in the wind tunnel at Imperial College. What I really need is a team of aerodynamicists working constantly, every day: that's how the really good teams benefit on the aerodynamic side. We also need our own workshop to build tubs, rather than subcontracting, and all those plans are in hand. Mechanically speaking, everything on the JS33 seems fine — suspension, cooling, transmission: no serious problem. So the foundations are fine. To get the best out of it all that we need to do now is get the set-up right."

The new Ligier factory at Magny-Cours employs 105 people. Of these, eight are engineers — as opposed to three in the old days. "We still need eight more", says Ligier defiantly. "Our opponents have had all that for five, ten years."

After the good years of 1979/81, when Ligier were among the Formula One front-runners, the French team has been through lean times. Things looked up briefly in 1986, but only until Jacques Laffite's accident at Brands Hatch. The bottom of the barrel was reached in 1988, with a JS31 trying to be just too original: a monumental flop which drew these words from Guy Ligier when he presented a new team and programme in January: "When you're dead and buried, it's hard to attract sponsors. It's hard to tell them to have faith in you, because you have nothing left to back that up with. But if I hadn't managed to do that, the only other solution was to quit."

In this struggle for survival, Guy Ligier had one notable ace up his sleeve: the friendship he has earned from Francois Mitterrand, France's President. The highest individual in the land may not have intervened directly in Ligier's favour, but there is no doubt that given his position, the relationship could only help him enormously.

Guy, though, knows better than anyone that his team's future depends on results, and results alone. When the Ligier wind tunnel is working, when tubs are made at Magny-Cours, there will still be one element missing: a works engine. It is hardly surprising, then, if Ligier is looking in Renault's direction. But then he's not alone in that... □

Top: Laffite takes Ligier's first F1 win, Sweden '77 (LAT); Left: And the last — Canada '81 (LAT)

THE WORLD CHAMPIONS

Part Two

CICCIO AND NINO: THE CAR DEALER AND THE CAVALRY MAN



BY STUART SYKES

Winning smile: Giuseppe Farina has just won the first World Championship GP. (LAT)

the Italian Grand Prix was he proclaimed champion of the world.

Monza is one of the shrines of motor racing, not only for the Italians themselves, but for all those who love the sport. The metaphor is particularly apt in Farina's case, for he was a deeply religious man. Prayer, he would later claim, was the ultimate factor in his historic win that day, when only victory over Fangio would be enough to give him the crown. "I believe in miracles", he said after the race, "for with only a few laps to go, and with Fangio already out of the race, I was leading when my oil gauge began to act peculiarly. I prayed to the Madonna, accelerated to maximum speed as fast as I could and kept putting it into neutral. I won the race — but next day nobody could restart that engine."

Only one more win would follow for Alfa Romeo, in Belgium the following year, before the Doctor moved on to join Ascari, Villoresi and Taruffi in a formidable Ferrari quartet. In 1951 Ferrari had fulfilled one ambition when his 4.5-litre car in Gonzalez' hands beat the Alfa-Romeos in the British Grand Prix. Alfa Romeo, in fact, had withdrawn from the sport. To encourage competition for Ferrari, the governing body promoted Formula 2 - 2 litres unblown or 500cc with supercharging - to the status of Formula 1. Had Farina but known it, the rising star of Ascari was about to eclipse all the Doctor had achieved. In 1952 Farina won not a single Grand Prix; in 1953 he took the chequered flag ahead of the field just once, in Germany. While Ferraris were sweeping all before them, Nino could win only that one Grand Prix for the Commendatore, though he did finish second and third in the World Championship in those two "F2" years.

The late Enzo Ferrari himself, always forthright on the subject of drivers and notably his own, was unstinting in his praise for Farina. "The epitome of courage", he called him, though he knew too how to express disquiet over the Farina style: "At the start of a race, he was not unlike a high-strung thoroughbred... Nearing the finish, he was capable of committing the most astonishing follies. As a consequence, he was a regular inmate of the hospital wards." Curiously enough, this headlong activity in a racing car rarely threatened Farina's life. In practice for Monza in 1954 he had a transmission breakage at around

160mph, causing the fuel pipe to rupture and give him "400 metres of hell" before escaping from the blazing car. How ironic, then, that he should have perished in a banal road crash in 1966.

Farina's career brought 33 Grands Prix, five victories, five pole positions - but 27 front-row starts — and six fastest laps. A family man, Farina was nevertheless devoted to the racing cause: three days after his wedding he flew to South America to race in January 1948. He was already 43 when he won the World Championship; in the closing stages of his Ferrari career the old lion was giving best to the young



Winning ways: Ascari, Ferrari, Spa '52 (LAT)



Another Italian picks up points for the Prancing Horse: Musso, Germany '57 (LAT)

Anyone who thought the combination of Nigel Mansell and Ferrari was like Agip and water was stunned by the Englishman's brilliant victory in Brazil. Among other thoughts, it prompted the reflection that the departure of Michele Alboreto was just the latest twist in a fairly sorry tale where Italian drivers and the "Italian national team" are concerned. This, the second of our regular 1989 series on the World Champions, looks back at the only two Italians to have taken that coveted title: Giuseppe Farina, the first World Champion of them all, and the legendary Alberto Ascari.

As with our first feature on Hawthorn and Hill, there are surprising coincidences between these two Italian drivers, not least that they scored their last World Championship Grand Prix wins in successive races in 1953, or that Monaco

played a dramatic part in the career of each. At the first-ever Monaco Grand Prix to count towards the newly-created Championship in 1950, Ascari was one of the few to escape the carnage when Farina's leading Alfa-Romeo skidded on sea-water near the Tabac, and Ascari went on to claim second place in his maiden World Championship race. Born in 1906, Giuseppe was in the world of cars from his earliest years. His father and uncle Pinin went into business together, creating what would become the equally legendary coachbuilding and styling firm of Pininfarina. Giuseppe first tasted racing by his uncle's side at the age of 19, but cars took second place for a while as horsepower of a different kind intervened. Giuseppe Farina became a cavalry officer, moved on to a tank detachment, and still found time to secure a doctorate in law before the call

of motor racing became too strong. He would always appear in official results as Dr. G. Farina, though to those who knew him best he was always known as 'Nino'. Italian champion by 1938 and a protégé of the great Tazio Nuvolari, Farina spent his first two seasons in the World Championship with the all-conquering Alfa-Romeo team, whose dominance Enzo Ferrari was determined to end. When the World Championship began, however, Farina signalled his intentions with a Silverstone victory by just over two and a half seconds from teammate Juan Manuel Fangio. These, after all, were the days of the "Three F's": Farina, Fangio and Fagioli, the Alfa-Romeo trio who shared the front row on that Northampton day with Britain's Reg Parnell... in another Alfa-Romeo. Farina secured three victories in that seven-race opening season, but not until the teams reached Monza for



Farina (left), Ascari (second right) — and (centre) a youthful Stirling Moss (LAT)

bloods of the day, not least his teammate Alberto Ascari. Seeking to finish off with a flourish, Farina went to Indianapolis — then a World Championship event — in 1956... and failed to qualify. The shadow cast over him by Ascari would, as we shall see, extend across the Atlantic too.

If Farina was born into an automobile environment, Alberto Ascari had racing in his blood. Was not his father the incomparable Antonio, former racing teammate of Enzo Ferrari himself, Antonio, after whom the Ascari Curve was named at Monthery, the circuit where he lost his life in 1925? Alberto's own passion for speed was developed on motor cycles, and in 1940 he took part in the celebrated Mille Miglia road race endurance test. With the intervention of war and fatherhood, however, Alberto settled to the life of a respected car dealer, the occupation he would later list on a questionnaire on his entry to the United States.

In 1947, however, he too succumbed to the lure of motor racing — in Egypt, of all places. Italian compatriot Piero Dusio's appeal for a "mass-produced" racing-car had led to the creation of the Cisitalia, a whole fleet of which were shipped to Egypt for the international Grand Prix. Finishing second was enough for Ascari; the racing heritage was

strong in his veins, and his friendship with another great driver, Luigi Villoresi, did nothing to deter him.

Ascari bought a Maserati 1500 — from Villoresi — and went racing in secret. The cover was blown, however, when he was the only man to hound the Alfa 158s, in the hands of such giants as Varzi and Trossi, at the Fiera circuit near Milan, and he began racing in earnest for Maserati in 1948. A year later Ascari was a Ferrari driver, his first victory for the marque coming at Bari, where an adoring crowd also coined the unusual nickname: "Ciccio", or "Tubby".

His debut in the World Championship came at Monaco, as we saw, but he had to wait until July of 1951 for his maiden victory at the fearsome Nurburgring, taking the flag by half a minute from Fangio's Alfa-Romeo. "He hated to see wheels around him", was how Enzo Ferrari summed up Antonio's son. Whenever he could, Alberto would start like a rocket and dominate the opposition from the front. "He was not the fighter I would have liked him to be", added the Commendatore, but Ascari did well enough for the Prancing Horse; all 13 of his World Championship victories were for that marque, two at Monza, the team's spiritual home. Runner-up in the title chase in 1951, he took the World Championship for the next two

years running. In fact it would be better to say he walked away with it: six consecutive victories in 1952, five more wins in 1953 — fat chance of catching Ciccio.

In a sense he timed his arrival at the top of the racing ladder to perfection. When the up-grading of Formula Two was announced, Ferrari asked his famous engineer Aurelio Lampredi to design a four-cylinder engine to do the job. The unit was conceived, drawn and built within four months, in plenty of time for Ascari to rout all-comers. Nor was the great 4.5-litre Ferrari rendered obsolete, for here is another coincidence between the fortunes of Farina and Ascari. In 1952 Ascari decided to lay siege to the American fortress of Indianapolis. With limited back-up and a single engine at his disposal, he qualified comfortably — unlike Farina a few years later — and was running strongly enough, he felt, to go on and win the race when a wheel hub broke and pitched him on to the infield. "It was a Friday", a resigned Ascari would say, "so it ended up badly..." Ciccio was, indeed, a deeply superstitious man, one who would make Stefano Modena's curious little rituals pale into insignificance. The pale blue helmet, gloves and other items of driving paraphernalia would always be packed in the same order and place, no-one else

allowed to touch them. This fetish merely serves to make the circumstances of his death the stranger and sadder. Before it happened, he had won a final race for Ferrari. The man he beat into second place? Dr. Farina, at Switzerland's Bremgarten circuit in 1953. The two had fought out an epic duel in Germany the previous year, Ascari recovering from a last-minute pit stop for oil to beat his arch-rival on the final lap. Ascari's last success came on August 23rd; three weeks earlier, at the Nurburgring, Farina had been feted as a Grand Prix winner for the final time. Ascari parted company with Ferrari in 1954 — Maranello politics being one of the few constants in Formula One — and cooled his heels for a while as a new Lancia was developed, though pole position in Spain was the last of 14 in his career, and the only one not in a Ferrari. The start of 1955 was promising enough, until Monaco. The retirements of Fangio and Moss had left him in the lead, but whether the adrenalin flowed too strongly or something broke on the car, Ascari and his Lancia crashed at the chicane on the seafont and ended up in the harbour — just at the spot where he had touched wood the previous evening.

He escaped relatively unscathed, stayed in Monaco for two days and went home on the Wednesday. Thursday May 26th found Alberto Ascari at Monza, where Castellotti and others were testing for Ferrari prior to a minor race on the Sunday. To everyone's surprise, Ascari asked to have a run, to see if the stiffness had left him after his accident. To his friend Villoresi's horror, Ascari borrowed helmet and goggles from Castellotti himself: Ascari, who would never be parted from that light blue helmet... which was having its chin-strap repaired after his Monaco plunge. Two laps were enough: something borrowed, something blew. The car crashed inexplicably, and Alberto Ascari was dead. At 36, the same age as his father was thirty years earlier that fateful day at Monthery.

The circumstances of his death add poignancy to the legend of Alberto Ascari, but he had achieved something no Italian has done since that date: won the World Championship in a Ferrari. Only sixteen Italians have been Ferrari Grand Prix drivers; only eight of them have won races; only three have won more than one. Italians in Ferrari's have won 26, so Ascari's victories account for fifty per cent of the total Ferrari haul, and Farina's almost another fifth. Michele Alboreto, the most recent Maranello departure, won three races for Ferrari, but none since 1985; and since Ascari in 1953, no other Italian has ever been champion of the world. That, in a sport where statistics abound, is perhaps the strangest of all. □



Primitive pit board tells a familiar tale in 1953

(LAT)



One of the few: Baghetti, seen here at Syracuse, won once for Ferrari in '61

(LAT)

TURBO TO ATMO

RENAULT SPORT

DAVID TREMAYNE

The turbocharged era of Grand Prix racing - particularly the years from 1983 to 1986 - will go down in history as a Golden Age of motorsport. It was a time when power outputs rocketed from 650bhp to 1300 in qualifying trim, when the racing engine was persuaded to produce up to a staggering 870bhp per litre. In 1966, with the introduction of the 3 litre formula which the turbos eventually supplanted, 150bhp per litre had been deemed optimistic... Looking back, it is sometimes easy to forget the derision with which the initial Renault turbo was met when it made its debut at Silverstone in 1977. The Formula One regulations at that time allowed 3 litre engines and 1½ litre supercharged, but nobody apart from Renault gave much serious thought to anything but the former, the French company having experimented with the concept for two years already prior to

that first race. The expression normally aspired - to indicate that the engine inhaled air at the standard atmospheric pressure of 14.7psi (one bar) - had yet to become common. In 1977 the Cosworth DPV still ruled the roost, although the Ferrari and Alfa Romeo Flat 12s had their moments and using the former's reliability Niki Lauda won the World Championship. The power ante in those days was around 460 to 470bhp, but even then Renault boasted some 25bhp more. More than anything else, the Regle wanted to win Le Mans, and Francois Castaing had designed a 2 litre engine primarily for sportscar racing and Formula Two use. It was then turbocharged by Bernard Dudot, and when Renault Chief Executive Bernard Hanon gave the go ahead to begin a design study for Formula One, this unit was reduced to 1500cc and installed in a

makeshift Alpine derived testbed chassis. Testing was carried out during 1976 and they learned a lot about temperature control, fuel injection and boost regulation. Renault was to discover, however, that its sheer power was not the be all and end all in Formula One. Its original turbo engine had appalling delays in its throttle response and a very narrow power band, and was grossly unreliable too. On the RS01's debut in the 1977 British Grand Prix at Silverstone, where the wide sweeps of the circuit were expected to flatter the engine's characteristics, Jean-Pierre Jabouille qualified only 21st and retired early when the induction manifold cracked. As his 2.7 bar boost became 1 bar, he was left to battle the 3 litre cars with what was effectively simply a 1½ litre power unit... As Renault struggled through to the end

of that season, and retired in race after race in 1978, its rivals sniggered more and carried on with their tried and trusted engines while trying to unravel the mysteries of ground effect. Jabouille finally finished a race at Monaco, where he was 10th, but it wasn't until the US Grand Prix at Watkins Glen towards the end of the year that he finally scooped three championship points for fourth. With no other turbo engine manufacturers on the scene, Renault's technical progress was relatively slow by the standards that would come in later years. By 1979 the V6 was producing over 530bhp, and then came the breakthrough and Jabouille's historic victory in the French Grand Prix at Dijon. There were no further successes that year, but as rivals began to register the straightline speeds that the Renaults were posting the writing began to appear on the Formula One wall: the only thing that was holding the Renaults back was their chassis technology. The turbo engine was there to stay.

As Renault progressed to a very healthy 550bhp at 10,500rpm by 1980, Ferrari and BMW began working on their own turbos, while Brian Hart began considering a blown version of his Formula Two four cylinder.

By 1982 a normally aspirated victory was becoming unusual, but it took until 1983 for the death knell finally to sound for the 3 litre powerplant. Then, Michele Alboreto's victory round the streets of Detroit was to mark the last win for a normally aspirated Grand Prix car until Nigel Mansell's Ferrari took the chequered flag in Rio six years later.

To the purists the idea of turbocharged engines and their 'screwdriver' tuning was anathema. Somehow, turning up the boost to produce greater power seemed like cheating, in engineering terms. What it really did, however, was to force the pace of race engine development in a manner that was more akin to the Nazi financed battles between Mercedes-Benz and Auto Union in the Thirties, except that this time it wasn't one propaganda hunting government that was providing the bankroll for unlimited advance, but a series of major car manufacturers bent on exploiting the marketing advantages of Formula One. Their quest was to produce one of the greatest eras of Grand Prix racing.

As more manufacturers began producing

turbo Formula One engines, Renault's limitations became more apparent, and by 1983 BMW and Ferrari were the real top dogs and TAG Porsche and Honda the names to watch. And as the race for greater power pushed compression ratios far higher than their comfortable pre-83 rates, electronics became ever more important in controlling the destructive danger of detonation.

From 6.7:1 at the beginning of 1983, compression ratios leapt over 8:1, and as new restrictions on fuel capacity obliged engine designers to run their units on the leanest possible settings, there was significant danger of the mixture in the cylinders igniting before its designated point. When that happened the engines rarely survived for long.



boost to 2.5 bar in 1988, and a frugal turbocar fuel ration of 150 litres, many had hoped for equality. Had FISA also legislated against red and white cars called Honda Marlboro McLarens it would have been a terrific season, with victories for Lotus, Ferrari, Williams, Benetton and March. Instead, the Honda turbos still ruled the roost. Undoubtedly, one of their aces was the little switch in the cockpit which changed the temperature of the air through the intercooler. This bypass regulating valve allowed the driver to alter the charge temperature to improve his power output or fuel efficiency, depending on his circumstances. On the RA168E V6, for example, there were five positions, ranging from 30 degrees

Piquet, France '85: Brabham's last turbo triumph (L47)

Boost levels were creeping to 3.5 bar for qualifying, and suddenly power outputs of 650 to 700bhp were the norm. That year flat bottom chassis regulations had replaced ground effect, but it wouldn't be long before power increases far outweighed any reduction in cornering forces, and lap times would continue their downward spiral. This suited all their downward spiral. This suited all but the remaining normally aspirated cars. As turbo power soared towards the 1000bhp mark, designers could afford to run larger and larger wings to restore the lost undercar downforce. The atmos, by contrast, made little progress on the power front. From 475bhp in 1977 outputs had risen to little more than 520bhp in 1983 with the advent of the short stroke Cosworth DFV. FISA eyed the developments with alarm

upwards. There was plenty of power at the lower temperature, but economy naturally suffered, and he could adjust this balance up to the highest temperature, at which power would be reduced but economy be enhanced. When he wanted an extra spurt to pass anyone, or to keep a rival at bay, all the driver had to do was switch to the coldest setting, provided he didn't stay on it for long, and paid back his fuel reserves later. That was precisely the ploy Nelson Piquet was obliged to use against the normally aspirated Benetons of Sandro Nannini and Thierry Boutsen, and Riccardo Patrese's Williams as he raced for third place at Imola last year. A driver of Ayrton Senna's calibre, for example, could tell Honda's engineers exactly how his car behaved during a

given number of test laps with the switch in all of its different positions, and would be fully conversant with all its permutations.

The massive power increases of the 1983 to 1986 period brought about unprecedented engine development, the fruits of which will still be felt in the new 2000 years. Materials technology has been enhanced, and we are now on the threshold of using ceramics in racing engines. Furthermore, the progress made in the technology of managing an engine's variables will be of continuous value not only in maximising its power,

but also regulating its fuel economy. Now, however, there should be greater equality, just as there is in Formula 3000 and Formula 3, although naturally a more efficient unit will generally beat a less efficient one, just as the Cosworth DFV used to pulverise BRM's V12 or Repco's V8 in the old days.

It will become much harder to extract more power in a quantum leap from an unblown Formula One engine, now that its breathing is not artificially affected, and observers fervently hope this will lead to closer racing while reducing the likelihood of any one marque dominating

in quite the same way as did Williams and McLaren towards the end of the turbo era. Now increases will come not from making an engine live with increased boost pressure, but from promoting better breathing - hence the numerous explorations of five valves per cylinder - and by achieving higher revs. Besides the fantastic sounds of the new breed of atmospheric engines - the Ferrari and Chrysler Lamborghini V12s and the Honda and Renault V10s - the

Old flame? Turbo fire warms up Warwick, Germany '87



Location: Lotus Formula 1 team headquarters, Ketteringham Hall.

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other encouraging aspect of the new formula is the continued interest from major manufacturers. Far from jumping off the bandwagon with the death of the turbos, they are still as keen as ever to involve themselves in what is now a highly expensive marketing exercise. FISA rather optimistically reels off a string of manufacturers said to be interested in building Formula One engines, and certainly the plan to rationalise Formula One and the Sports Prototype World Championship around 3.5 litre displacement unblown engines has played a major role in that. Currently Honda, Ferrari, Renault, Ford (Cosworths old and new), Judd, Chrysler, Lamborghini



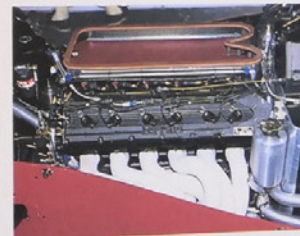
Above: Shortlived lapping by new Larrousse Lola Lamborghini at Imola (John Townsend); left: Zak Speed Yamaha — not yet an unqualified success (L47); below: Lotus-Judd didn't win straight out of the box (Allison Vandystadt)



(Lukas Gorys)



(Sporting Pictures)



(John Townsend)



(Keith Sutton)

and Yamaha are already in the arena, while Life, MGN, Neotech, Subaru, Mercedes Benz, BMW, Alfa Romeo, Peugeot, Nissan, Toyota and Porsche are said to be waiting in the wings. Even if only half of them take the plunge, Formula One can expect a wide variety of powerplants within the next five years, and that can only be good news for an increasingly expensive sport.

When the 3 litre formula came back in 1966, engine design dictated chassis dimensions. Now the wheel has come full circle. More often than not, chassis criteria such as overall packaging and the prime requirement of a narrow cross-section, dictate the type of engine. Thus few believe that the Life and MGN V12s, or Subaru's Flat-12 will ever see the light of a racing day in an era in which even a traditional 90 degree vee angle is now regarded as excessively wide.

Although fuel capacity restrictions have now been lifted, economy will continue to be of paramount importance. In the turbo era petrochemical manufacturers came up with special dense fuels to help in the fight against detonation, but though atmo fuel will weigh less, it is still important for cars to be as light as possible, and nobody wants to go to the startline carrying anything more than the absolute minimum necessary to make it to the chequered flag at full racing

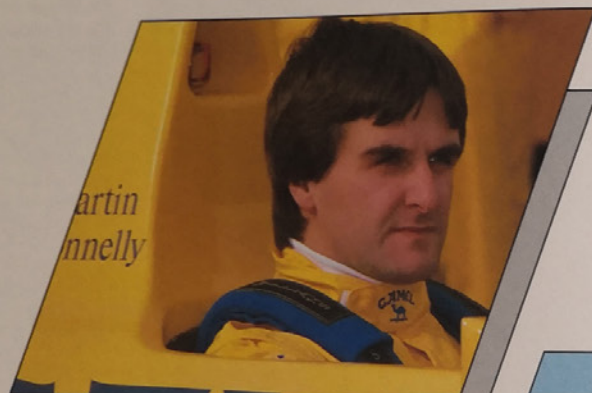
speed. And at a time when the fuel tank is rapidly becoming a major headache for the designer as he tries to package it most efficiently, any reduction in its size is welcome.

The absence of fuel restrictions means good news as far as racing is concerned, since we should have to endure fewer economy runs than has been the case in the recent past, and more races could go down to the wire. Although engine outputs are back to 1983 levels, with the Honda RA109E generally believed to be the most powerful at 650bhp, and the Renault, the Ferrari and the new Ford next on 630, chassis development and the return of the qualifying tyre have already ensured that the new cars are improving on 1988 performance levels. There is a further cause for optimism too. Every chassis designer is now rubbing his hands gleefully at the prospect of once again exerting greater influence over his car's behaviour than at any time since the very early Eighties. As Frank Dernie and Harvey Postlethwaite both recently remarked, the turbo engine has been the bane of the creative chassis engineer's life.

The turbocharged Grand Prix engine was an extraordinary device, whose like we probably won't see again, but from the pure racing point of view the new brand of atmo powerplants should be significantly better, even if they don't quite possess that sheer tyre-distorting, rubber laying punch and the black trail of unburnt hydrocarbons that signalled Nelson Piquet had embarked on a blistering qualifying lap in the 1300bhp Brabham BT54... ■

OUTSIDE LOOKING IN

MARTIN DONNELLY 'TRAVELLIN' MAN'.....



(Allsport)

ANDY SMITH

In motor racing — you must have noticed — all Italian drivers are 'dark and exciting' (or should that be 'excitable'). The English are 'determined and phlegmatic', the Irish 'quietly laconic'. Martin Donnelly — the 25 year old Ulsterman presently so much in demand by Formula One, Formula 3000 and Group C — is in the words of the old Irish football coach — 'more deceptive than he looks'.

A seemingly laid back exterior conceals the fierce determination to succeed in his ambition to make Formula One. Donnelly's already sampled the heady cocktail of sun, dust, oppressive heat, blinding glare and grindingly hard work, ploughing endlessly around the Autodromo Nelson Piquet. He professes to enjoy it. 'Remember that when I was setting off to test the Lotus in Rio, the Formula Three guys were lining up on the grid at Thruxton. I'd done that, shivered in the cold and the wet of the pits and I've no regrets about not being there again!'

Donnelly's career last year was not so much progression as quantum leap. Formula Three to Formula 3000 with Eddie Jordan Racing and wins at Brands and Dijon impressed Lotus and virtually everyone else. Tom Walkinshaw took him to Daytona for the 24 hour race in

January — the beginning of a new and strange phase of Donnelly's life.

'Seems like last year — it was only January! Travel hadn't been a part of my lifestyle until then. I'd been on the local British Formula Three scene, the odd trip to Europe and Macau of course at the end of the season — but this year, since Daytona, it's been non stop 'Go here, go there, drive this, do that'. Daytona was the first experience Donnelly had close hand of the first class racing scene. "I learned what a really professional outfit demands. My involvement with TWR — the best team in sports car racing was invaluable. There was a lot of tension around with Jaguar going for a double and pressure on me not to screw up. It was 85 degrees while we there, so we were told not to sit in the sun; there were no strict instructions about what we could eat; the whole atmosphere was different. Drivers like the Andrettis were around and the race was such a big thing with full TV coverage, it was a unique experience for me".

It wasn't entirely a happy one though. Donnelly's teammate Derek Daly collided with the Nissan of fellow Irishman Michael Roe on the very first lap and shortly afterwards it was confirmed that Donnelly could sit back and watch and take the

opportunity to learn. The car was pushed back into the transporter.

The opportunity for more races with Jaguar in the World Sportscar Series presented itself but came to nothing because of a sponsorship problem. Not the usual kind — a lack of sponsorship — but a conflict between sponsors. Still, Cut back Jaguar: Donnelly is with Camel.

Noticing a 'window' or two in his schedule Donnelly organised himself a Japanese Formula 3000 drive to add to his European Formula 3000 programme, Lotus Formula One testing and a commitment to Nissan to test and drive at Le Mans. "Even without Nissan I feel I've over-stretched myself. I certainly can't take any more on, I'm starting to feel like a foreigner. I don't live in the country, I'm always on a plane somewhere. Airline tickets just arrive at home with a message — be on this plane from that airport and I just go. I went with Lotus to Rio testing for five days, flew back from Rio via Heathrow to Jerez for three days Formula 3000 testing then back from Jerez to Rio via Madrid to be on Formula One standby. When I came back to England it was more Formula 3000 tests."

Far from looking jaded by the jetting across the Atlantic, Donnelly, on a typically grey Silverstone day with the wind howling across the paddock

from somewhere Dadford way, looked content enough with his lot though "I admit I don't really feel in control of my life at present! The problem is that at this stage of the season everyone has a new car and they all want them testing on the same day. Home life is non-existent. My fiancée Diane is suffering most. I arrive back from some-where or other, throw in one set of washing, pick up a clean lot and head off again. I keep promising her it'll be better soon."

The Donnelly home is a semi-detached in the village of Attleborough in Norfolk. "Nothing special — and no I'm not in Norfolk just to be within range of Peter Warr at contract time! In fact I settled there when I first came to England in 1984. I've always got on well in Norfolk. It's one pace behind the rest of the country, people have time for you and it's difficult to get to which means Eddie can't get hold of me at short notice — that's a bonus."

Manager Eddie Jordan has been the catalyst in Donnelly's career. He is confidant, friend and advisor "I owe him a lot. Other people can't understand his accent and say 'yes' before they know what they're agreeing to. I don't have that problem."

At the Racing Car Show at London's Olympia in January, Lotus announced that Donnelly would be their test driver for the 1989 Formula One season and reserve should any mishap befall either Nakajima or Piquet. Many observers expected Donnelly to be offered the number two seat. "That did appear to be a possibility for a while. Last October I was testing at Snetterton and Peter Warr phoned. I knew Lotus had been doing some checking on my background. Prior seat there appeared open — a week later Satoru was back in the picture and the best offer was a test contract."



Left: Travelling fast — Donnelly's Brands Hatch F3000 win (Allsport/Pascal Rondeau). Below: Team talk at Eddie Jordan Racing (Zoom)



"By that stage I was hardly in a position to pick and choose so I explained that I wanted to be a part of the team — involved totally, not just a test driver pounding around Snetterton twice a week and nobody ever hearing about what I was doing."

Donnelly was emphatic on that point — he may derive some satisfaction from a good testing job, but it is winning races — and recognition that he craves. "I don't want to become another Emanuele Pirro charging around a track all the time in Japan for McLaren and nobody ever hearing of him".

Lotus guaranteed that would not happen — he would be included as an integral part of the team and if Piquet or Nakajima cannot race — he will. "I feel very much part of the team already. It's a good team to be with, I think I get on well with everyone".

Donnelly's Formula One debut almost occurred at Rio. Piquet, inspecting his new yacht in Viareggio harbour in February fell down a ladder and broke a rib.

Donnelly was in Japan and was told the news when he phoned home. "Diane had heard on the radio about Nelson's accident. I didn't believe her at first and no matter who I called for information nobody seemed to know much. When I got back I went straight from Heathrow to Lotus. Peter Warr told me Piquet had four weeks to recover and not to build my hopes up!"

In the event Piquet reported fit and Donnelly watched the race on TV. By then he knew every foot of the track having driven round it dozens of times. "Rio was just uncomfortable: the heat and humidity, if you moved you sweated. The track is difficult and bumpy and there's no room in the cockpit. I'd come into the pits gasping for some fresh air. Then they'd take the engine cover off and the heat from the engine just blasted out. My mouth felt like sandpaper and I'd feel sick".

Donnelly persevered, helped by the fact that he had a few friends around him. Johnny Herbert — colleague and opponent

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from Formula Three was there and the pair took the opportunity to have dinner together in Rio a few times. "We had a couple of laughs, it was important to relax". Is Formula One as unfriendly as it is rumoured to be? "Not unfriendly, I wouldn't say so, just more competitive. Everyone is more guarded about what's going on. I'm lucky compared to others who've made Formula One. I've a few friends there already — people like Johnny, I was really pleased by his performance in Rio; others in Formula One I know well are guys like Raphanel and Moreno but it's much more difficult to build up relationships in Formula One and even Formula 3000. You only see people at the circuits and then they're totally wrapped up in what their own team is doing. It's not like Formula Three where everyone lived and worked in the same country virtually".

One man who gave Donnelly a few welcome words of encouragement in Rio was the World Champion Ayrton Senna. "I've always had a great deal of respect for Ayrton going back to the days when I came to England in 1984 and was with the Van Diemen operation in Norfolk. Senna had been with them too and in Rio he stopped by our pit and had a chat. When I was racing in Ireland I would always check what Ayrton and Martin Brundle were up to in Formula Three.

Nowadays I read everything I can about Formula One — every report. I want to know everything that's going on. As I've progressed through each Formula I've taken it step by step but I'm determined to take every opportunity that comes my way. Motor racing is a fashionable business and fashions change quickly". Ambition is a part of the Donnelly make up — not blatantly obvious but hardly obviously concealed either. "Formula One is the pinnacle of a driver's career, the cream. It's the most professional, the most experienced. Drivers are looked after, they don't want for anything. I'm really impressed by the set ups and the organisations. I don't feel overawed. I just want to be a part. I've seen Johnny Herbert break through, now I want to succeed".

So how often will he actually be used by Lotus this season? "The Lotus deal and winning the European 3000 are top priorities, they go hand in hand. Later in the year I'll be very much involved with Lotus when they start work on the Tickford engine development (a five valve cylinder head) in mid season. Satoru and Nelson will be away racing in America then, I'll be putting in the miles in Europe".

By mid season perhaps things will have calmed down a little for the Irishman who is presently living life at such a hectic pace. Then again mid season coincides with Formula 3000 races and

Le Mans amongst others. "I'm not really enjoying such a cluttered lifestyle, it's all a bit over the top; this last week has been typical, test at Silverstone for the Formula 3000, then three days at Snetterton with Nissan — it's disconcerting! Small things put you off like getting back into a single seater after driving a big heavy enclosed sportscar for three days and it seems so small I'm saying to myself "Is this my steering wheel? Is this my proper seat?" but I have to carry on — it's only a year since I was in Formula Three wondering what to do next. Now the choices are made".

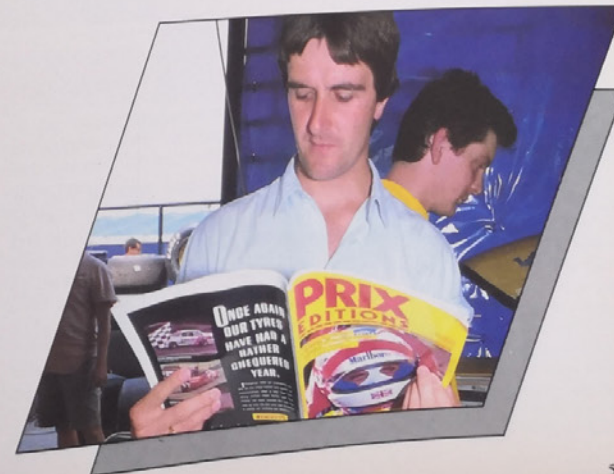
For the time being Donnelly will put up with being the man in demand 'Go here, go there, drive this, do that'. He can always relax in Norfolk later. Though when he has lived there he has found little enough time for surveying the scenery on the Broads. Motor racing has always come first. "When I was in

Formula Three with Inter Sport their workshop was only three minutes down the road so I was always popping in there to annoy everybody. Now Lotus is only twenty minutes away so that's pretty convenient too".

Maybe at some stage during Donnelly's hectic year there will be a chance to take a boat out on the Broads — "Dinner on the boat — the ideal way to spend a fine evening on the Broads".

The likelihood is that there will be limited opportunities — this year at least. Fine evenings are strictly limited in Britain and in any case there will be another ticket, another plane to catch. 'Go here, go there, drive this, do that'. Donnelly intends being in fashion for some while yet.

Below: Outside looking in — at Rio (John Townsend), and a leading F1 magazine (Lukas Gorys)



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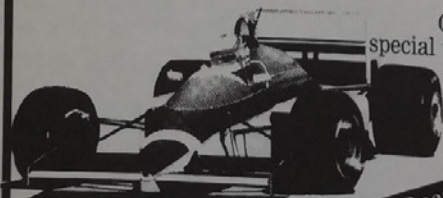
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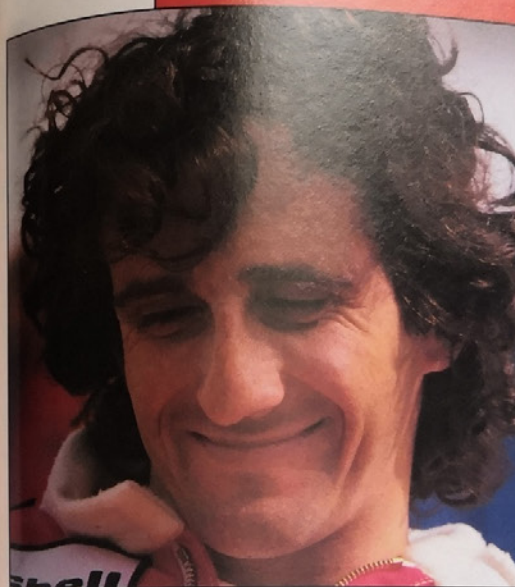
(Allsport/Pascal Remy)

Political journalists drive themselves to distraction at five yearly intervals, watching for the first hint of a date for the impending election, studying the Prime Minister's every nuance, analysing every word in an effort to second-guess the situation. In the end, of course, it's down to the politician at the top. Similarly, in 1989 Formula One watchers will face a similar challenge in trying to predict Alain Prost's long-term intentions. Will the man who stamped his identity on a decade of Grand Prix racing finally hang up his helmet at the end of the year?

When Prost came whistling past the chequered flag at Estoril in 1987 to score a record 28th career Grand Prix win, his glittering talent was graciously acknowledged by the man whose 13 year record of 27 wins had just been overturned. Jackie Stewart remarked admiringly, "if my record had to fall, there's nobody I would have been happier to exceed it than Alain. To me, he's the most complete driver out there today..." The Scot then added, "I think Alain is quite capable of pushing that record to around 40 wins before he retires,

producing a record which may never be broken."

To many people, that seemed an optimistic prediction at the time. In the season he'd said that he would have at least one month off during the winter. Completely. Away from motor racing. He had managed that. "The whole of January - one full month. I stayed at home, went on holiday, skiing...no golf, even... A lot of gymnastic training, though. It was great..." A pause and a smile "...even though Ayrton had three months off." The drudge of winter testing can come



(Dynamique Leroy)

can turn the tables on his teammate and win a World Championship. In public, he picks his words carefully. Privately, he has expressed the belief that the new naturally aspirated regulations favour his surgical driving style. There wasn't much wrong with his performance at Rio, of course. Clutch problems meant that he had to make his second set of tyres last 45 laps - almost twice as far as anybody else on the circuit. He still finished second, admitting that he had gained more satisfaction from this performance than from many of his victories. As has been so often the case in the past, Prost took a scalpel to the job. And it proved more effective than a cleaver...

Calm and unflustered on race morning, Alain talked about his feelings for the season: "Yes, I feel very motivated. Just as motivated as I felt after winning at Adelaide, even though it's sometimes difficult to be so at the start of the season when you're facing such a crowded schedule of races..."

Unquestionably, he felt his batteries had been re-charged. Before the end of last season he'd said that he would have at least one month off during the winter. Completely. Away from motor racing. He had managed that. "The whole of January - one full month. I stayed at home, went on holiday, skiing...no golf, even... A lot of gymnastic training, though. It was great..." A pause and a smile "...even though Ayrton had three months off."

The drudge of winter testing can come

as a pain for those who've spent eight months chasing their championship hopes round the circuits of the world. After the elation of Adelaide, it's hard to settle down to the first winter tyre test at Jerez less than a fortnight later. Ayrton, nursing a broken bone in one hand after an accident playing beach football in Bali, got off the hook for much of the drudge. Alain, along with the excellent Emmanuele Pirro, did the lion's share of that early testing in the 3.5 litre car. Although by the end of the turbo era, a driver's problems with throttle lag had been virtually eliminated - at least by comparison with the three and four second gap between stabbing the throttle and the engine's response which had characterised these engines in their early years - Alain admits the atmospheric V10 was something else again on this score.

"Where you notice the biggest difference is changing gear, where you now have to be more conscious of feeding in the power more delicately," he explains. "And while in some corners you find a big difference between the performance between the turbo and the atmospheric cars, in others it's about the same. At Rio I had a problem at low revs with my driving style; it felt as though I was back driving a turbo again. That was partly my technique, I think, and partly the fact that the engine's response needed

improving from low revs. I'm certain by the time we get to Imola, we will have improved this side of the car's performance."

"Although I only previously drove an atmospheric car during my first year in Formula One, I'm really looking forward to this season without all the complexities of the turbos which were always likely to interfere with a driver's performance. Although fuel consumption is obviously still important, we won't have to spend our time staring at consumption gauges wondering whether they are giving us the right information...racing will be less, what's the word, inhibited...That pleases me."

Going into his tenth Formula One season, Alain Prost shows no sign of the 'burn out' which has affected so many of his contemporaries in a much shorter time. That he has managed to conserve both mental and physical resources is a reflection of his measured approach to his chosen sport.

Close observation of the man, and his teammate, when they are out of their cars provides a fascinating index to their personalities. Senna mentally sifts through every facet of his car's performance, perpetually analysing, totally absorbed. Two hour post-practice de-briefs, a regular item on the McLaren menu, are something the Brazilian relishes. It's understandable. Senna didn't come into Prost's backyard and beat the Frenchman without having to apply an enormous effort to the task. Alain, on the other hand, displays a less urgent temperament, although he cares passionately about the quality of his own performances. He has learned to keep the lid on his feelings and, outwardly at least, is less obsessive than Ayrton. His taste for gamesmanship, delivered with great subtlety, is well developed.

Take Estoril last year. Having popped pole position out of Senna's reach, he changed out of his overalls and re-appeared at the pit wall to watch his teammate struggling with a troublesome car. A week later at Jerez, the tables were turned and it was Ayrton who changed early, reappearing on the pit wall to watch Alain at work.

Yet when Alain was told what Ayrton had done, he was enormously amused. Then somebody suggested McLaren ought to have a pit signal made saying 'PROST-CIVVIES' just for Ayrton's benefit. Alain picked up his ears. "Civvies? What's civvies?" he inquired. When the expression

was explained to him, he giggled with delight for several minutes, revealing that impish sense of private humour usually reserved for jokes with his closest French confederates.

One of those friends, of course, remains Jacques Laffite, with whom he went into partnership to buy an interest in a 27 hole golf course near Dijon. Golf is his great passion away from his work.

"But I'm never likely to be invited to play in the French Open," he smiles. "My handicap is currently 10 which is a long way from Nigel's at 2. A big gap. I love the game, but I don't get to play as much as Nigel who's almost like a professional, playing virtually every day, which is what you have to do if you're going to sustain that sort of level. I'm the sort of person who becomes bored very quickly if I'm not doing anything, so from that stand point, I find golf very good for me."

But what of the future? How long does he have left before the Formula One pressure-cooker environment loses its appeal? And when the time comes for a decision, will it be spontaneous or calculated?

"No, I will plan my retirement when the time comes," he says enigmatically. "More importantly, I want to have a very clear



plan of what I'm going to do when I retire. But I haven't thought about that in any detail. Maybe I'm at the stage when, perhaps, I'll do one more year before I start seriously making those plans..."

However, he denied that he had a private strategy like Keke Rosberg's, for example. As early as the middle of 1985, Rosberg knew that he would finish his time with Williams, do one more year for McLaren and then call it a day. Prost hasn't got such a structured plan in mind; "It's not a question of keeping it a secret. I know exactly what I was going to do then I would say..."

One thing, however, seems certain. Alain Prost is not a man to do anything in halves. Aware of his status in the Formula One community, he has far too much self-respect to stay racing after his talent has peaked. I suspect he will be one of those who turns his back on the sport whilst at the absolute zenith of his career. But, to judge by that second place at Rio, not yet awhile... □

Left: One giant to another (Dominique Leray). Below: It's all in the timing... (Briscoe-Knight)



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(Dominique Leroy)

PIRELLI

BACK TO THE FRONT



(Dominique Leroy)

DAN KNUTSON

PIRELLI'S RACE HISTORY

Pirelli has a race history that stretches back to the earliest days of the automobile. On March 26th, 1889, Pirelli made its new Grand Prix debut in Brazil. That same day, halfway around the world, a commemorative run of the 1907 Peking to Paris race was scheduled to start in Peking. The original winning car, an Itala which has been restored by Fiat, will make the run again 82 years after it did in 1907.

In 1907, Prince S. Borghese, journalist Luigi Barzini and mechanic Ettore Guizzardi drove the 7.4 litre Itala over the 16,000km route. Five teams in all took part in the Peking to Paris race, and the Itala team won by a margin of three weeks. The Itala was equipped with Pirelli tyres.

Pirelli's first Grand Prix win came in 1913 when Georges Boillot drove his 5.6 litre Peugeot to victory in the Grand Prix of France at Amiens. Boillot sent a photo of himself sitting in the Peugeot to Pirelli headquarters in Milan. He signed it and wrote: "To a victory made possible by the extraordinary quality of Pirelli tyres."

That was the first of 92 Grand Prix victories for Pirelli. The first of six Formula One championships for Pirelli came in 1925 with the Alfa Romeo P3 and drivers Gastone Brilli Peri, Giuseppe Campari and Antonio Ascari.

Pirelli's glory days in Formula One began with the modern Grand Prix era in 1950. In those times the Italian teams — Maserati, Alfa Romeo, Ferrari — ruled supreme. And they all used Pirelli tyres. In 1950 Giuseppe "Nino" Farina won the world championship driving a Pirelli-shod Alfa Romeo 158. Farina won the first race in 1950 — the British Grand Prix — and started a 30 Grand Prix winning streak for Pirelli that would last until 1954.

The streak, incidentally, does not include the Indianapolis 500 which, until 1960, counted as part of the Formula One world championship. At the Brickyard in those days the winners ran on Firestones.

In its glory days Pirelli was associated with the most famous names in the sport. Alberto Ascari won the 1952 and 1953 world championships in a Ferrari. Juan Manuel Fangio won the 1954 title in an Alfa Romeo and the 1955 championship in a Maserati. Fangio's streak ended in 1954. Fangio won two races in his Pirelli-shod

Maserati before switching to the Mercedes-Benz team and Continental tyres. He won four Grands Prix for Mercedes that season and the world championship. In 1956 Pirelli pulled out of Grand Prix racing. Not until 1981 would it return to the Formula One arena.

In 1957, however, Fangio used left-over Pirelli tyres on his Maserati and won his fifth world championship. During those golden years Pirelli was winning outside the Formula One world, too. From 1913 to 1957 Pirelli-shod cars won major races everywhere: 18 of the Mille Miglia classics, 19 Targa Florios, the Le Mans 24 Hours in 1949 and 1954, and a number of other races including events such as the Sebring 12 Hours, the Nurburgring 1000km, and the Spa 24 Hours.

From 1927 to 1957 Pirelli built two lines of racing tyres — the Stella Bianca and the Stelvio. The Stella Bianca (White Star), which had a carcass of rubberised cotton cord, was introduced in 1927. It had a tread pattern of low pentagonal blocks which were linked by rubber bridges to eliminate chunking at high speed.

In the late 1940s and in the 1950s the Stelvio was almost unbeatable. It had a carcass of rubberised cotton which was later changed to a nylon cord reinforcing



Left: Look, no wheels (P. Nygaard). Centre: Front-running Brabham, France '85 (LAT). Below: Berger's Mexico triumph '86 (LAT)



material. Pirelli cut transverse grooves into the tread pattern to improve its grip in the rain.

Since the 1970s Pirelli's main successes have come in rallying. Through its relationship with Fiat and Lancia, Pirelli has won steadily in the rally world and its laurels include eight world manufacturer rally championships.

When Pirelli returned to Grand Prix competition in 1981 it struggled to compete with Michelin and Goodyear. Part of the problem was that Pirelli tyres could only be found on the teams that filled the back half of the grid.

That changed in 1985 when Bernie Ecclestone's Brabham team and Pirelli came together in a multi-million dollar deal. Over the winter of 1984/85 Brabham did some 12,000 miles of testing. Much of the testing was done on high-speed circuits in hot weather, and under these conditions the Pirelli tyres were competitive. Nelson Piquet won the French Grand Prix that year, bringing Pirelli its first Grand Prix victory since Stirling Moss won the 1957 Italian Grand Prix in a Vanwall.

In the 1986 Mexican Grand Prix Gerhard Berger's strategy of running without a pitstop for tyres paid off. The Austrian won the race in his Pirelli-shod Benetton. It was Pirelli's 44th Grand Prix victory.

At the end of the 1986 season Pirelli pulled out of Formula One. Which brings us back to 1989...

BACK TO THE PRESENT

In 1989 Pirelli will supply tyres to the Brabham, Coloni, Dallara, EuroBrun, Minardi, Osella and Zakspeed teams, a total of 13 cars.

How many tyres will Pirelli bring to a Grand Prix weekend? "About 800," Calzavara says. "We plan to have at every Grand Prix two race compounds, two rain compounds and one compound for qualifying. Maybe we will introduce a second qualifying compound because in qualifying we are not very competitive at the moment. Basically, 50 percent of the total will be the two race compounds." Which of the Pirelli teams get free tyres? "This is private between us and the teams," Calzavara says. "I can say that Minardi has a special relationship with Pirelli because we started to test with Minardi. I think that if today, generally speaking, we are competitive that is thanks to the Minardi collaboration." Pirelli's return to Formula One brought back the madness of qualifying tyres — the soft, sticky tyres which gave the cars incredible grip for two or three laps. Because of the limited number of qualifying tyres available to each driver, they take enormous risks on their fast laps.

Calzavara quickly agrees that the qualifying tyre situation is a ludicrous one. "Nobody is happy about the qualifying tyres," he says. "Qualifying

Right: Show of strength from the opposition (Keith Sutton)
Below: Brabham — back to the front in '89 (LAT)



Above: Moreno not slick enough on wets (John Townsend)
Left: Sun shines on Pirelli... (Sporting Pictures)



tyres are a waste of time, a waste of money, a waste of energy for everybody. So, if the international sanctioning body FISA together with a general agreement from all the teams wants to establish any kind of regulations that can limit this problem, we are completely in favour. And I think also that my colleagues at Goodyear are of the same opinion."

The core of Pirelli's on track technical team consists of Calzavara, chief engineer Gianni Turchetti and another four junior engineers. Like Goodyear, Pirelli faces enormous shipping costs and logistics. In Europe the Pirelli transporters haul the tyres from Milan to the tracks. For the overseas races Calzavara says that the tyres will be sent by air 70 percent of the time and the rest of the time by ship.

Now that Pirelli is back in Formula One what are its goals? And will Pirelli now be involved on Formula One for the long run?

The answer to that, Calzavara says, is basically the same answer to the question "why is Pirelli back in Formula One?" "The image of Pirelli is very closely linked to the sport," he says. "It's an active image because Pirelli has always been involved in motor racing. Formula One today is the most vital activity with very important feedbacks in terms of promotion, in terms of interest of the press and the general public in Europe, the United States, South America, Japan..." Pirelli is back.



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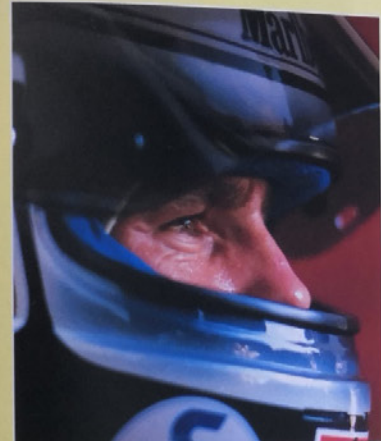
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GERHARD BERGER "NO BACKING OFF"



DAN KNUTSON

This issue of PEI was at press when Gerhard Berger had his terrifying accident in the San Marino Grand Prix (see race report on p.20). We are delighted that Gerhard emerged relatively unscathed and wish him the speediest possible return.

(Allsport/Pascal Rondeau)

For those who hadn't heard, the symphony of engines on first day of practice for the Brazilian Grand Prix was a glorious reminder that the turbos are gone. Instead of the harsh bark and sputter of turbo charged engines, one could listen to the unmuffled wail of V8, V10 and V12 power plants. Singing sweetly down the long back straight, the Ferrari V12's engine note told not only about the new non-turbo era, but also of a new era for Ferrari. Because for Ferrari and for Gerhard Berger, 1989 brings the 3.5 litre Ferrari V12 engine, John Barnard's 640 chassis, the semi-automatic gearbox, and new teammate Nigel Mansell. And 1989 marks the first full Formula One season without Enzo Ferrari. After the first day of practice for the Brazilian Grand Prix was over, Gerhard Berger talked about the new Formula One era, about Ferrari and of racing days gone by. With the post-qualifying team debriefing finished (it lasted over two hours), Berger walked out of the Ferrari air conditioned cabin located in the paddock

behind the pits. We sat on one of the crates that the teams use to jet their spares around the world. First question: Is he looking forward to the non-turbo era? "On one side yes and on one side no," Berger says "I'm happy because it's a different area. I started in the turbo era." After proving to be one of the masters of the turbos, Gerhard is looking forward to showing that he can win in a normally aspirated car. "On the other side," the 29 year old Austrian continues, "I liked the turbo cars with the big power in 1986. These In those days of brute power, the 1.5 litre turbo cars could put out over 1,000 horsepower in qualifying. Now the 3.5 litre normally aspirated engines can only claim about 650 horsepower. Does he feel the percent ratio of car versus driver has changed in 1989? Is the driver more important today? "You can never tell these things," Berger says, "because if you don't have the right driver you can have a car that is 100 percent perfect and you won't win. And

the opposite is true." The last year of the turbo era saw the crushing domination of the Marlboro McLaren Honda team whose drivers Ayrton Senna and Alain Prost won 15 of 16 races. Berger's Ferrari was usually McLaren's main challenger, but on many occasions only a distant one. During last season's rain-soaked German Grand Prix, for example, Berger said, "Prost passed me on the straight like I was in a street car." Through it all Berger kept his sense of humour. After finishing third behind the McLaren he would be the first to arrive at the post-race press conference. "Always the same," he once quipped when he walked in. "Third on the track, first through the door." And through it all Berger never gave up. He was the only non-McLaren driver to qualify on the pole (at Silverstone) and the only non-McLaren driver to win a Grand Prix in 1988. That victory came at Monza. Running second, Berger kept the pressure on leader Senna who would tangle with Jean-Louis Schlesser with two laps to go.

Berger flashed by and led teammate Michele Alboreto across the line for a Ferrari one-two sweep of the Italian Grand Prix. The victory, which set off a near-riot by the ecstatic "tifosi" fans, came four weeks to the day after Enzo Ferrari's death. Today, Berger calls that win his most memorable racing experience. Instead of just one win in 1988, Berger could have had many. At the end of 1986 he turned down a McLaren offer and joined Ferrari instead.

Is he upset that he passed up McLaren for Ferrari? "No," Berger says. "I think I could have won a lot last year in the McLaren. But my decision was to go to Ferrari. I'm here and I'm happy here. I'd also be happy if I had gone to McLaren. So, it's no problem."

It's been said that Berger's fellow countryman Niki Lauda advised him to make the move to Ferrari. "No," Berger says, "it's not true. He never told me. I made my own decision, and you can say if I look at last year that I was wrong. You shouldn't look at things like this. You should be happy where you are."

Did three-time world champion Lauda play a major role in influencing his career? Again Berger says no. "He's just another driver and a good friend." One driver did, however, play a role in Berger's life. In 1982 a severe shortage of money caused Berger to consider giving up his fledgling racing career. Then he met former BRM driver Helmut Marko who helped the young Austrian find sponsorship to compete in the European Formula 3 championship.

In 1984 Berger drove in Grand Prix competition for the first time. Several races with the ATS team brought him a sixth place finish in Italy and recognition of his talents by several teams who expressed an interest in him for 1985.

Then came Berger's serious road accident. He broke his neck yet had an incredible stroke of luck — the first car to stop on the scene contained a pair of German doctors who specialised in such injuries.

At the hospital the doctors told him that it would be months before he could walk again. The problem was that he had a testing date with Arrows in five weeks. He hobbled out of bed, kept the date and signed with Arrows in 1985. The team was not competitive. He joined Benetton in 1986, and at Mexico he scored his first Grand Prix victory.

Enzo Ferrari, watching Berger race on TV, said he had a "special feeling" about Berger, and so it was that Berger became a member of the Prancing Horse team from Maranello in 1987. Berger repaid Enzo's confidence that year with victories in Japan and Australia, ending Ferrari's 37-race losing streak.

How has the team changed following Enzo Ferrari's death? "Not a lot," Berger



Left: Imola was a crossroads — let's hope Berger is back soon (Sporting Pictures). Below: Ferrari's overheads... (P. Nygaard)



Right: The style we all look forward to seeing again (LAT). Below: Gerhard at Imola before his unhappy race (LAT)



says. "It's still the same. OK, we lost our big chief and that's sad, but the atmosphere in the team is the same."

The years at Scuderia Ferrari have elevated Gerhard to true international superstar status. Two of the benefits of driving for Ferrari are his road car, a Ferrari 328, and a lucrative contract from Marlboro. He was born in Worgl (near Innsbruck), Austria on August 27th, 1959. He still enjoys going home where he can ski (his original passion for speed) and look after his trucking business. But the trips home are not as frequent as he would like.

"I have 40 trucks but I don't work a lot anymore," Berger says of his business. "You have to relax to be strong for the next race. Now I have moved to Monte Carlo so I will not be at home enough. My father looks after the business now." To keep in shape for the physical demands of driving a Formula One car Berger trains with fitness guru Willi Dungl. "He has a lot of experience because he spent a long time with Niki Lauda," Berger says of Dungl, "so he has the right background for this business."

Berger is now in his fifth full-time year of



"this business." Not since 1986 has he had to deal with qualifying tyres. The return of Pirelli to Formula One this season after a two year absence means that both they and Goodyear are supplying drivers with the soft short-lived qualifying tyres.

Is Berger happy that qualifiers are back? "No," he says emphatically. "no I'm not happy because it's more risk and more dangerous."

One of the most intriguing aspects of the 1989 season is Ferrari's new semi-automatic seven-speed gearbox. The drivers use the clutch to start the car, and after that they change gears by moving levers behind the steering wheel (left for down-shifts, right for up).

Is it hard to get used to driving a Formula One car fitted with the semi-automatic gearbox? "No, it's not difficult and it's nice to drive," says Berger who clearly doesn't want to discuss the system. Later in the weekend designer John Barnard politely declined to give any details of the system, saying that he wants the other teams to figure it out for themselves.

An amusing anecdote concerns the first

time the system was demonstrated to Nigel Mansell. Sitting in the car with the rear wheels jacked off the ground, Nigel noticed that they were turning the wrong way. All it took to fix the problem was to switch a couple of wires...

Barnard and Berger have formed a solid working relationship. Barnard has worked with the best drivers such as Alain Prost and Niki Lauda, and he rates Berger highly. "We get along very well," Barnard says. "they are much the same, these top guys. They are always thinking of the car."

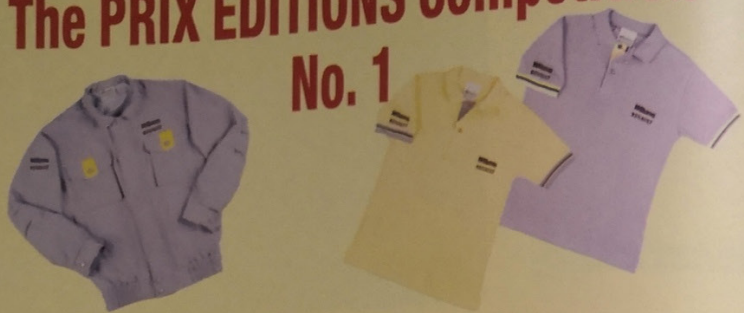
Speaking of relationships, what about the relationship between Berger and his new teammate Nigel Mansell? The two have known each other since Berger's Formula 3 days. "I have no problems with him," Berger said last season after Mansell signed with Ferrari. "We will work well together."

Now that they actually are working together, what does Berger plan to do to keep the relationship from deteriorating? Says Berger: "I think we have nothing specific to do. We just have to drive and I don't think we will get any problems." Does Berger see any particular area where Mansell might be stronger than him? "I didn't find out yet," he says. "I haven't had enough experience, (with Mansell), but he's very quick."

Mansell proved the fact by winning the Brazilian Grand Prix later that weekend. Berger and Senna, meanwhile, collided in the first turn on the first lap. Berger parked his Ferrari on the back straight and walked to the pits. Later he was quoted as saying, "Senna chopped across twice to try to make me back off, but he shouldn't try that with me. Never in my life will I back off in that situation."

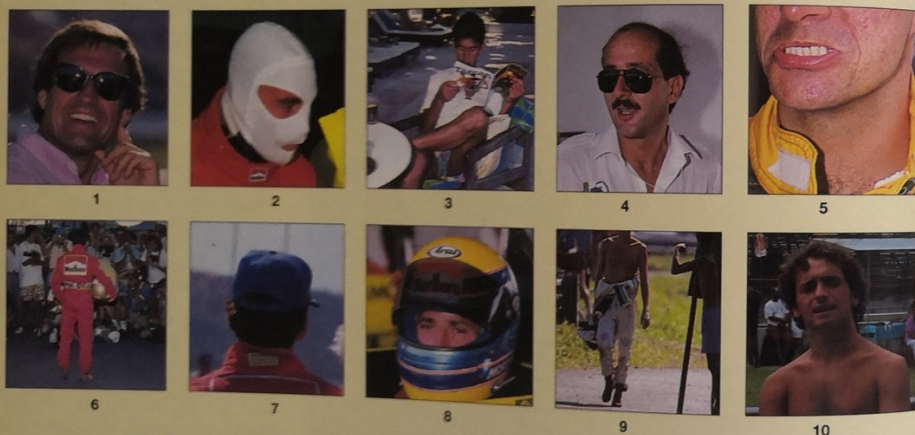
So the 1989 Brazilian Grand Prix ended within minutes for Berger. But the new Formula One era is just beginning. Says Berger: "We are ready to start a new and successful period in the history of the Scuderia. My only regret is that Mr. Ferrari will not be there to see it."

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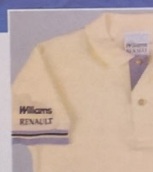
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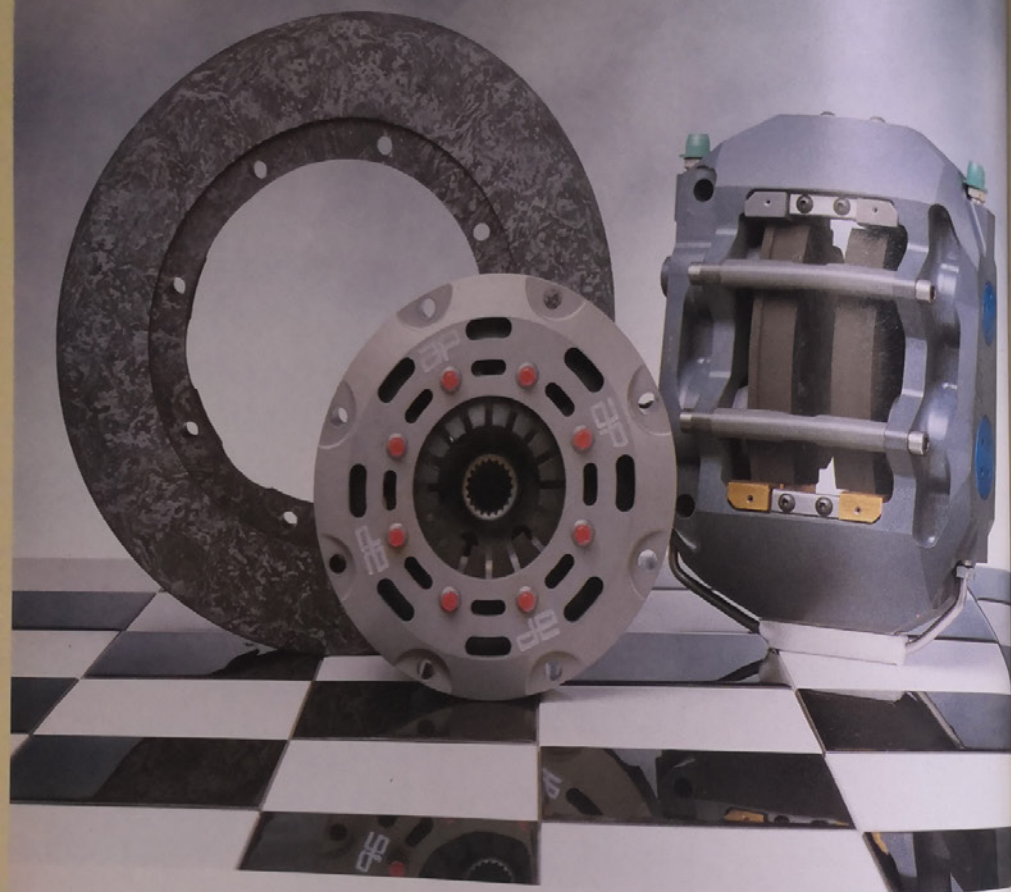
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THE DEREK WARWICK COLUMN

The four-month break from Adelaide '88 to Rio '89 was the longest I had been out of a racing car since my career began in earnest — and boy, was I glad to be back. What a marvellous way to start the new non-turbo era, too: six cars within 18 seconds at the end of the race, and four Brits in the top seven — including yours truly. Rio, for me, proved two things in particular: we're going to have motor racing the general public can respond to, and Derek Warwick can be a Grand Prix winner in 1989.

I joined USF&G Arrows two years ago along with Eddie Cheever, designer Ross Brawn and, really, a whole new package. It's taken time, but we've gradually turned it around now, into the package you see in 1989: not the ultimate — we still need a major engine manufacturer behind us, as far as I'm concerned — but we're more on a par now than we've ever been before. Last year we scored 17 points with a two-year-old car design and a 10-year-old engine; we have a designer in the top five, a sponsor among the best in Formula One, and prospects second to none.

We finished fourth in the World Championship last year, Arrows almost doubling their previous best-ever total. I consider last year as one where I put myself back on the map as a serious driver. Fitter, feeling younger, because I'm more relaxed now than I ever felt: relaxed, but hungry... I want to win: for sure I have the ability to win, but I'm only just now getting myself into a good position to win. With Arrows this year, we thought we'd consistently finish in the top six and aim for the rostrum. Well, since Rio, I think we're able to race for first place and finish regularly on the rostrum.

Mind you, when that race was over I had

a chance of catching the 16:30 BA flight to London, which would allow me to go and watch my brother Paul in his first Formula Three race. Arrows manager Jackie Oliver and I ran for the helicopter and made the plane with something like 15 minutes to go... I actually got to the check-in desk in my overalls; I had a

(John Townsend)



non-changeable ticket, but flustered the lady so much she just threw me on to the plane. At passport control I was stopped by two policemen who wouldn't let me through because I had my overalls tied round my waist, still dripping with sweat, with no shirt on: but when they saw who I was they let me past, they thought it was great! I had a quick wash in the men's room, got on the plane, and

it was quite nice to get up to London at 07:30 the following day.

My father was waiting for me, and we drove straight down to Thruxton. It's very important for me to go to as many races as I can with Paul, because I feel part of his growing-up — I feel like I'm going through my teenage years again. He gives me immense pleasure: instead of the younger brother having the older brother as the hero, it's almost the other way around. He is a racing driver that's a bit special, that's going to be as good as the best we have or had, I'm just hopefully steering him in the right direction. He's a lucky bugger, really; he's looked at all my bad points and said, "No, I don't want them"; looked at all my good points and absorbed them, and developed his own. I've got parts of other drivers in me that I've looked at, liked and absorbed, and he's done the same — bits of Senna, bits of Villeneuve, bits of DelBoy — though he rarely admits it! For me, watching Paul is a release valve, if you like, but also a part of life's pleasures. I had three meetings in London recently, not for me, for Paul. I enjoy that side of it, because I can sell Paul Warwick: first of all I can get in there, because I'm Derek Warwick, then I can tell them how good Paul Warwick is!

Looking at Formula One in general, there was one other consequence of the opening race in Rio I feel very strongly about — Philippe Streiff's appalling accident. I've always said, if I'm going to have an accident, I hope it's at Brands Hatch or Silverstone, and the way Philippe was handled is the reason. Apparently from the time he had his accident to the time he was on the operating table was 10 or 11 hours: that's ridiculous. We as a Formula One body can not allow that,



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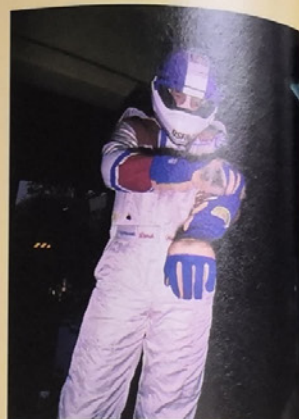
Sizing up the settings in Brazil

(Sporting Pictures)



That thing went through hell, you know: he shouldn't be alive, and just thank God he is. Philippe is a devoted racing driver. He gives 110 per cent off and on the circuit. He hasn't got a lot of enemies, but not a lot of friends either because of his single-mindedness; he's very difficult to get to know, unlike a lot of other drivers, but we all have our different ways of giving our all. Philippe works hard with the sponsors trying to put deals together; he works hard with the team keeping them together, the guy gives 110 per cent — and probably that 110 per cent created the accident, nobody knows. But for that to happen in modern day racing...

I think everybody thought we had the best facilities around; but what we did, of course, was we took it for granted, rather than go up to people and say to them: "OK, what if there is an accident, a driver is paralysed or hurts his back — what do you do?" I had an accident last year in Canada, where the safety facilities are second to none. I was taken out of that car like a baby; but even then, when I came to rest, I hurt badly; I was sick inside, I couldn't move, I was semi-unconscious — and I came around with



Wrap up warmly — it was only 100 degrees! (Dominique Leng)

this fire marshal wearing asbestos gloves trying to take my helmet off. Almost ripping my head off... Next thing I



'That thing went through hell' — the aftermath of Streiff's accident

(Sporting Pictures)



Three faces of a modern Grand Prix driver (Lukas Gorys/Sporting Pictures/Lukas Gorys)



very, very tired. I had blood on both elbows, both knees, and I lost the nails on three toes because I'm pushing my feet into very small boots now to give

myself more room in the cockpit. The car is very uncomfortable, and that shouldn't be — I do it for pleasure, not for pain! ■

remember was Mansell coming along, pulling the marshal off, undoing the helmet gently: so there's a lot of room for improvement. It's an educational process, we need to know what to do when those accidents happen: don't attack the guy with a pickaxe, take him out of there gently.

The important thing is, you need a voice. In former days we had Niki Lauda; now Niki Lauda could go into a meeting with Jean-Marie Balestre, Bernie Ecclestone or the Lord Mayor of London and get a hearing. Derek Warwick going into those meetings doesn't really get the same attention; we need one of the top drivers to represent us. For me that man is Alain Prost: Prost commands respect from drivers, from marshals, from doctors, and from the President. And he's now relaxed enough, the senior statesman, to be able to do the job.

I believe everyone has done a great deal to improve safety, but things are overlooked. What's important is to bring the driver's feet behind the front axle line; in doing so they've just concertinaed the driver up. We've now got into an era of 4'6" racing drivers, and that just can't happen: a racing driver is a racing driver because he has the ability, not a jockey's build.

When Jackie Stewart looked at my car at Ricard, he said, "The full potential of this car will never ever be known because the driver will not be able to drive it at eleven tenths. To a certain extent he's right. Eddie in particular was very cramped in the car, but racing drivers adapt themselves very quickly. Still, after Rio I was



By the time the Rio column was done, Delboy had made a straight line for Imola — and Arrowed into the points again

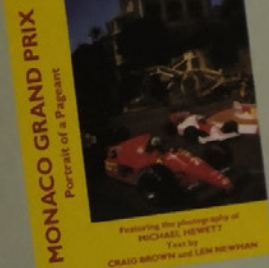
(LAT)

SPEED READING

MONACO GRAND PRIX

Portrait of a Pageant
Featuring the Photography of
Michael Hewett

Text by Craig Brown and Len Newman
Price £19.95 Published by Motor Racing
Publications Ltd.



Do not be deceived by the cover — the pageant that is Monaco is not to be found on the jacket.

The introduction to the book needs careful reading otherwise you will not discover the photographic identity of Michael Hewett, and the reasons why some of his excellent 'atmospheric' pictures of the Principality's motor race, do not technically meet the standards of some of today's great lensmen.

The opening pages are concerned with the history of the event and the roles played by Anthony Noghes and Rene Lyons. Irritatingly the map of the circuit in 1935, carefully showing numbered landmarks, does not list those landmarks by name, which in turn renders the chapter on 'Refining the Layout' quite difficult to follow.

Assessing this book is not made easier by the different levels of quality which are presented in the three principle areas of the book: the pictures, the text, and the captions. The pattern is simple enough;

each of the 46 races is described chronologically in short photographic essays supplemented by sparse text and descriptive captions. The main characters in the dramas which span the 60 years in question, are sharply focussed and more than a little of the flavour that is the Grand Prix world's most compelling anachronism is in evidence.

For the most part the pictures are well-chosen, very well reproduced, and in their composition, quite excellent, especially some of the black and white pictures — the shot of Elio de Angelis coming up the hill (p. 152/3) is a good example. But I missed the 'pageantry' of Monaco itself — the wealth, the glamour, the fashion, the poseurs in pose, and the sheer opulence of the place. I would have liked too, more photographs of the pit areas and the paddock to reflect if nothing else the difficult conditions under which the teams have to work, and the way in which this does not seem to matter.

The text, whilst factual, does not quite convey the colour and excitement of a pageant and indeed there are instances of the words leaving more questions unanswered than the opposite. In a book of this kind, and especially for those of us too young to remember the epic drives of the early days, the anecdote and the quote would have added tremendous authority and credibility to the text which in turn would have given the pictures an extra dimension.

The captions are very helpful, but I would have preferred a less rigid design style, so that they became a part of the overall story. All enthusiasts will want this book — in its way it shows so much of what Grand Prix motor racing is really about — especially its heroes. If it is found wanting for the reasons described earlier, it is for its omissions rather than its content. It may not be the pageant implied but it certainly is a fine picture.



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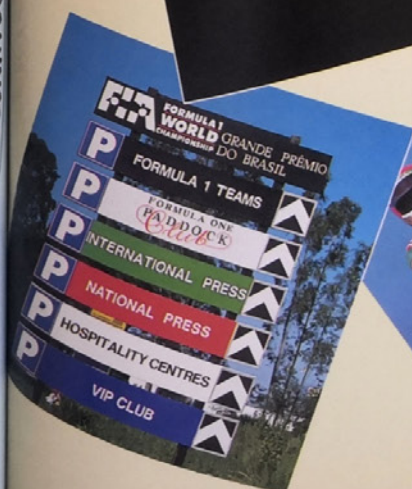
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PITFALLS

LIFE ON THE PIT LANE'S LIGHTER SIDE

Accreditation is the bugbear of many journalists' lives, but even in the media jungle you don't expect to have to cope with real lions. Imagine the consternation of those who turned up in the early evening of Thursday, March 23rd at Rio's Inter-Continental Hotel to fetch their race credentials, only to find the car park security men cowering from a lion on the loose. Well, strictly speaking, a lion cub, but why let the facts spoil a good story? They really did not know whether to gather it up and give it the baby treatment, or fetch the grown-up equivalent of a butterfly net. Journalists duly made discreet entry into hotel via side door. Two hours later, papers duly pocketed, some sat quietly savouring the more friendly Brazilian fauna when in strolls... lion cub. In the ensuing panic, one man stood firm: B. Ecclestone appeared as by magic and befriended aforesaid lion cub (the original pussycat) to the extent of actually inserting his finger in the animal's mouth. It was noted that the cub already had the savvy not to return the gesture.



Severe case of brain fade

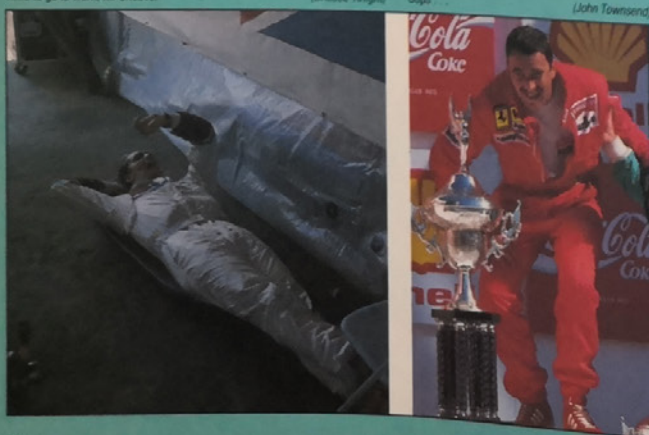
(Allsport Vandystadt)

Time to go to work, Mr Cheever

(Briscoe-Knight)

Gags

(John Townsend)



FISA has a new Press and Public Relations Officer, in the affable and extremely competent shape of Englishman Martin Whitaker. On Monday morning, after MW's baptism by fire in the opening round of the season in Rio, he is standing minding his own business in the Inter-Conti. Unfortunately for our hero, he is minding it beside the pool. Even more unfortunate is the playful presence of a FISA high-up who had better be nameless, along with a Grand Prix driver very definitely named G. Berger. At a loss for something to do, Austrian ace and FISA front man promptly push FISA Press Officer into pool. MW's assistant laughs so hard Herr Berger decides she had better test the waters too. "She'd have been okay if she hadn't laughed..."



Downforce problem

(Keith Sutton)

Another one for the records: in Rio, the excellent Riccardo Patrese celebrated his record-breaking 177th Grand Prix start by planting his Williams-Renault on the front row. Now Mr. B. Ecclestone, star of our first vignette, has a soft spot for the Italian who spent many a Sunday afternoon at the wheel of one of Bernie's Brabhams, so a commemorative gift had

rightly been arranged. Cufflinks? A train to add to Riccardo's very high-class collection of models? A gold watch? Something, at any rate, that was easy for an exhausted driver to carry back from far-flung Brazil? A mountain bike. Where the hell do you put a mountain bike on a jumbo jet already crowded with the world's weight in wheel nuts and

widgets? The ever resourceful Canon Williams mechanics, it was believed, had found the answer. Imagine our surprise, then, as we stood at the Varig check-in desk on Monday, when the Canon Williams crews arrived to swell the queue — and with them, all intact, one mountain bike...

Biggie and Bailey — and not an editor in sight

(Sporting Pictures)



Pitfall of the year? Harassed editor of well-known international Grand Prix magazine is in Rio paddock, boxing the compass in the effort to see all the people and go to all the places he has to get to in the course of a Saturday afternoon. A well-known international photographer bearing an uncanny resemblance to the one known as JT approaches, with friend in tow. The conversation: "Meet our English friend John Brown!" "Hello, how are you, just out for the race?" "Well, no, actually, I've been living out here for about 19 years." Still the penny does not drop, though the faintest of alarm bells has begun to ring. "Oh well," adds respect-seeking editor of international publication, "Must dash. Do enjoy the rest of your weekend..." Next day (next day, for Pete's sake), the realisation dawns: the editor of PEI had just been introduced to Ronnie Biggs. ■

IN THE NEXT ISSUE

First stop Monaco: the July edition of Prix Editions International starts with David Tremayne's report on the most atmospheric Grand Prix of the year, while Maurice Hamilton will be adding his own unique perspective on the race where everyone wants to be seen... even if they're not seen to be doing very much. A special anniversary year for Monaco, too: sixty years since Grand Prix cars first disturbed the peace of the Principality.



"We're supposed to be the best in the world: that's why they give us the hardest circuits", says Derek Warwick about Monaco. His regular Straight Lines column takes us to the sharp end of Formula One: the cockpit, from where the view is different again.



Martin Brundle is back in Grand Prix racing in '89. In an in-depth feature on one of the sport's most popular drivers, Nigel Roebuck finds out how World Champion Brundle is benefiting from the Brabham revival. Mauricio Gugelmin may be Brazilian, but to many the March driver is an honorary Brit: on the eve of the British Grand Prix, "Morris" talks to PEI about a year already transformed by that first-ever rostrum finish in his "real" home race in Rio.



In our background section, Alan Henry turns the spotlight on one of the most talented designers in the game — Adrian Newey, mastermind behind the March cars in which Gugelmin and Ivan Capelli have become regular Formula One front-runners. A truly international motor racing man, Newey has been at the top of the American tree as well: how does Formula One stack up against Indycar racing?



From transatlantic to cross-channel: regular French columnist Johnny Rives of *L'Equipe* gives us the lowdown on the renamed Larrousse team. Lamborghini, Lola, Larrousse: it flows nicely off the tongue, is it all running smoothly on the track?

All this, as they say, and much, much more: as the British round of the World Championship approaches, PEI will pay its own special tribute to one of the greatest British teams to have graced Grand Prix racing. Wait and see....

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
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